

# **Mountain Lion Sightings While Deer Hunting**

## **Survey Response Analysis**

October 31, 2002

**License Year 2001**

**Harvest Surveys**

**Montana Fish Wildlife and Parks**

### **Table of Contents**

|                                                                                                                      |           |
|----------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Introduction .....</b>                                                                                            | <b>1</b>  |
| <b>Tables of Expanded Statistical Estimates .....</b>                                                                | <b>9</b>  |
| 1. Statewide Overview of Montana Resident Deer<br>Hunters and Harvest, and Lion Observers .....                      | 11        |
| 2. Deer Hunting Effort and Lion Observations .....                                                                   | 13        |
| 3. Statistical Confidence and Relative Precision.....                                                                | 21        |
| 4. Additional Lion Observation Statistics .....                                                                      | 29        |
| <b>Appendix A: 2001 Mountain Lion Management Areas,<br/>    Regulations/Quota Units, and Hunting Districts .....</b> | <b>37</b> |
| <b>Appendix B: 2001 Mountain Lion Sightings Survey<br/>    Response Data Non-Expanded Summary Statistics .....</b>   | <b>43</b> |
| <b>Appendix C: 2001 Mountain Lion Sightings<br/>    Statistical Estimates Data File Description .....</b>            | <b>51</b> |
| <b>Enclosures</b>                                                                                                    |           |
| 2001 Deer Hunting and Harvest Survey Questionnaire                                                                   |           |
| 2001 Mountain Lion Sighting Survey Questionnaire                                                                     |           |

Montana State Library



3 0864 1006 9503 3

## Introduction

This report contains an analysis and summary of information returned from a supplemental survey of license year 2001 (LY2001) Montana resident deer survey respondents contacted by phone and reporting active hunting for deer. These respondents were asked if they sighted mountain lions while deer hunting and, if so, the number observed in deer Districts hunted. The **Mountain Lion Sighting Survey** specifically requested only those mountain lions observed while actively hunting deer. Each sighting was linked to a specific deer hunter expending a specific number of hunter days in a specific deer District. Thus mountain lion observations could be directly related to deer hunting effort and analyzed as an extension of the LY2001 deer hunter response data analysis.

Estimates of the number of **deer hunters**, number of **hunter days** devoted to deer hunting, number of hunters which were also **lion observers**, and number of **lions sighted** while deer hunting are presented at five different **levels of Location: Statewide, Regional, Lion Management Area, Lion Regulations/Quota Unit, and Hunting District**. (See **Appendix A** for a listing defining the Areas and Units in terms of Hunting Districts.) **Confidence bounds** at the 80% significance level are given for these estimates along with a measure of **relative precision**, as are various meaningful **ratios** of statistics based on these estimates.

As mentioned above, the analysis of Mountain Lion Sighting Survey response data is closely tied to the analysis of Deer Survey response data. This supplemental survey allowed reporting the "Number of Lions Sighted" for each "Deer District–Hunter Days" entry reported on the Deer Survey. (See the **Deer Survey** and the **Mountain Lion Sighting Survey Questionnaire** enclosures.) **The Mountain Lion Sighting Survey was asked of Montana resident deer survey respondents contacted by phone and reporting active hunting for deer.** Information on number of lion observers and lions sighted was directly linked to the deer hunting response data set for this subset of resident deer survey respondents. **Summary statistics from sighting survey responses were expanded to statistical estimates using the Montana resident deer hunter expansion factor, 2.755.** (See the **2001 Deer Hunting Report – Introduction** for the derivation of this expansion factor, and an overview of deer survey response data analysis.) Though the resident deer hunting expansion factor was used throughout this report, **the resident deer respondent subset analyzed was slightly reduced from that used in the Deer Hunting Report.** A small percentage (1.80%) of resident deer survey respondents were contacted by mail. These were not surveyed for lion sighting information, and were excluded from lion sighting analysis. Throughout this report, estimates of deer hunters and effort will be slightly lower than the estimates presented in the Deer Hunting Report. **The underlying population of potential mountain lion observers considered here is the population of resident active deer hunters with home phones.**

## Table 1: Statewide Overview of Deer Hunters and Harvest, and Lion Observers

**Table 1** presents overall Statewide estimates based on responses to the most basic questions on the deer hunting/harvest and mountain lion sighting survey response forms:

- **Did you hunt deer?**
- **If you hunted for deer, how many deer did you kill?**
- **If you hunted for deer, did you see one or more Mountain Lions while hunting for deer?**

Statewide estimates of Deer Hunters, Successful Hunters, Deer Harvest, and Lion Observers are presented, along with upper and lower 80% confidence bounds, plus meaningful ratios based on these statistics. **Two differing views are presented.**

**The first view provides statewide estimates, plus estimates by Conservation Prefix of the sportsperson.** This is meant to provide information on differences in mountain lion observation reports due to the type of conservation license a sportsperson holds. **The following statistics are presented by Conservation Prefix:**

- **Deer Hunters:** Point estimate of number of active MT resident deer hunters.
- **Hunters Low Bnd:** Lower bound 80% confidence bound on hunters.
- **Hunters Up Bnd:** Upper bound 80% confidence bound on hunters.
- **Success Hunters:** Point estimate of number of successful MT deer hunters.
- **S Hunter Low Bnd:** Lower bound 80% confidence bound on successful hunters.
- **S Hunter Up Bnd:** Upper bound 80% confidence bound on successful hunters.
- **Deer Harvest:** Point estimate of number of deer harvested by successful hunters.
- **Harvest Low Bnd:** Lower bound 80% confidence bound on harvest.
- **Harvest Up Bnd:** Upper bound 80% confidence bound on harvest.
- **Percent Success:** Ratio of successful hunters to hunters. An estimate of percent of deer hunters who were successful.
- **Kill Per Hunter:** Ratio of harvest to hunters. An estimate of the number of deer killed per active hunter.
- **Mtn Lion Observers:** Point estimate of number of deer hunters observing one or more mountain lions while deer hunting. Lion Observers.
- **Observers Low Bnd:** Lower bound 80% confidence bound on lion observers.
- **Observers Up Bnd:** Upper bound 80% confidence bound on lion observers.
- **Pcnt Lion Observers:** Ratio of observers to hunters. An estimate of percent of deer hunters who were also lion observers.

**The second view provides statewide estimates, estimates by Conservation Prefix of the sportsperson, and estimates by success of the deer hunter.** This is meant to provide information on differences in mountain lion observation reports due to whether the hunter succeeded in killing one or more deer. **The following statistical estimates are presented by Conservation Prefix and Hunter Success: Deer Hunters, Hunters Low Bnd, Hunters Up Bnd, Mtn Lion Observers, Observers Low Bnd, Observers Up Bnd, Pcnt Lion Observers.** Estimates are defined as above.

The estimate of the population of statewide resident active deer hunters considered to be potential lion observers is 117,526 ( $\pm 582$  80% C.I.,  $\pm 0.50\%$  Relative Precision). Of these, 61% were successful, and they harvested an estimated 90,451 deer ( $\pm 511$ ,  $\pm 0.56\%$ ). Of this total population of active resident deer hunters, an estimated 1.93% observed one or more lions while deer hunting, for an estimate of 2,273 ( $\pm 81$ ,  $\pm 3.56\%$ ) resident deer hunters observing mountain lions while deer hunting. Percent Lion Observers was highest for "Resident Conservation Disabled - 34" and "Resident Sportsman with Bear - 11" holders (4.37%, 3.35%). It was lowest for "Youth Sportsman -- 40" and "Flathead Reservation Conservation Disabled - 81" (1.42%, 0.00%). Successful resident deer hunters were somewhat less likely to report a lion observation while hunting as compared to unsuccessful deer hunters (2.03% vs 1.87%).

The estimated population of resident active deer hunters (potential lion observers) was slightly higher in 2001 as compared to 2000 (117,526 vs 117,436), though deer harvest was lower (90,451 vs 94,334). The estimated number of lion observers declined 26%, from 3,078 to 2,273. The percent of the population of deer hunters observing lions declined from 2.62% in 2000 down to 1.93% in 2001.

## Table 2: Deer Hunting Effort and Lion Observations

Table 2 presents estimates based on responses to the following questions on the deer hunting/harvest and mountain lion sighting survey response forms:

- **If you hunted for deer, list the Days Hunted by Deer District?**
- **If you hunted for deer, did you see one or more Mountain Lions while hunting for deer?**
- **If you saw one or more Mountain Lions while hunting for deer, list the number seen by Deer District (as listed above).**

Estimates of Montana resident Deer Hunters, Districts Hunted, Hunter Days, Lion Observers, and Lions Seen are presented, along with meaningful ratios based on these statistics which relate lion observations to deer hunting effort. These estimates are presented at 5 different levels of Location: Statewide, Regional, Lion Management Area, Lion Regulations/Quota Unit, and the Deer Hunting District (same as Lion District). See **Appendix A** for the Districts included in each Management Area and Regs/Quota Unit. **The following statistics are presented by Location:**

- **Deer Hunters:** Point estimate of number of active MT resident deer hunters.
- **Districts Hunted:** Point estimate of number of Districts hunted by deer hunters. This is presented only at the State and Regional levels.
- **Hunter Days:** Point estimate of number of days or parts of days spent hunting by deer hunters.
- **Distric/Hunter:** Ratio of Districts Hunted to Hunters. An estimate of the average number of Districts hunted by a deer Hunter. This is presented only at the State and Regional levels.
- **Days/Hunter:** Ratio of Hunter Days to Hunters. An estimate of the average number of days spent deer hunting by a deer hunter.
- **Days/Distric:** Ratio of Hunter Days to Districts. An estimate of the average number of days spent hunting in a District by a deer hunter. This is presented only at the State and Regional levels.
- **Hunter Observ:** Point estimate of number of deer hunters observing one or more mountain lions while deer hunting. Lion Observers.
- **Distric Observ:** Point estimate of number of deer Districts where lions were observed by deer hunters. This is presented only at the State and Regional levels. Lion Observation Districts.
- **Observ Days:** Point estimate of number of days spent hunting by deer hunters in Districts where lions were observed. Observation Days.
- **Lions Seen:** Point estimate of number of lions seen by deer hunters while deer hunting.
- **Percent Observ:** Ratio of observers to hunters. An estimate of percent of deer hunters who were also lion observers.
- **Distric/Observ:** Ratio of Districts Hunted to Lion Observers. The expected number of Districts a deer Hunter needs to hunt deer to observe a mountain lion. This is presented only at the State and Regional levels.
- **Days/Observ:** Ratio of Hunter Days to Lion Observers. The expected number of days a deer hunter needs to hunt deer to observe a mountain lion.
- **Hunters/Lion:** Ratio of deer Hunters to Lions Seen. The expected number of active deer hunters needed in the field to observe one mountain lion.
- **Days/Lion:** Ratio of Hunter Days to Lions Seen. The expected number of days a deer hunter needs to hunt deer to observe one mountain lion.
- **Distric/Lion:** Ratio of Districts Hunted to Lions Seen. The expected number of Districts a deer Hunter needs to hunt deer to observe one mountain lion. This is presented only at the State and Regional levels.
- **Lions/Observ:** Ratio of Lions Seen to Lion Observers. An estimate of the average number of lions seen by a lion observer hunting for deer.

**The ratios of statistical estimates presented in Table 2 provide standardized information regarding deer hunter effort, and how this effort relates to mountain lions observed.**

Districts/Hunter and Days/Hunter provide measures of deer hunting effort, standardized to the estimated number of deer hunters. These ratios provide more comparable measures of deer hunter effort over time, and between Locations, than do the underlying estimates themselves. For example, by Region during 2001, resident deer hunters expended most effort hunting deer in Region 2, and least in Region 5 (8.46 vs 4.56 days/hunter).

**Percent Observers** (Lion Observers/Deer Hunters) is the likelihood a deer hunter will see one or more lions while deer hunting. It could be used as an indicator of lion observability over time and between Locations. For example, by Region during 2001, resident deer hunters were most likely to see one or more lions in Region 2, and least likely in Region 6 (3.10% vs 0.26%). Lion Management Areas with the highest Percent Observers were R1-Cabinet-Yaak (M1A, 4.3%) and R2-Blackfoot (M2D, 3.3%). Hunting Districts with highest Percent Observers were 151, 316, and 425, at 11.1%, 8.3%, and 6.5% respectively.

**Hunters/Lion** is a similar measure of lion observability, standardized to the number of deer hunters. Instead of using number of lion observers, it uses number of lions seen. For example, by Region, it took the fewest number of deer hunters to see a lion in Region 2, and the most in Region 7 (21.3 vs 228 hunters/lion seen). Hunters/Lion may provided a finer measure of lion observability between Locations or over time, as compared to Percent Observers, but it may also be more subject to survey response bias. (The number of respondents reporting they saw Lion(s) by District may be more accurate and more stable over time than the number of lions reported in each District.)

Other possible indicators of mountain lion observability comparable over time and between locations include **Days/Observation** and **Days/Lion**. Here Lion Observers and Lions Seen are standardized to deer Hunter Days. Hunter days may be a more comparable measure of deer hunter effort than deer hunters, thus it may more directly standardize lion observability to deer hunting effort, and provide a more useful indicator of lion observability by Location and a more direct indicator of trends over time. For example, by Region, it requires the least number of deer Hunter Days to observe one or more lions in Region 1, and the most in Region 6 (254 vs 1888 days/observer). It requires the least number of deer Hunter Days to see a lion in Region 1, and the most in Region 7 (168 vs 1133 days/lion). The Lion Management Areas with the lowest deer hunter days per lion observation were R1-Cabinet-Yaak (M1A, 167) and R5-Mountain Foothills (M5B,182).

Statewide, the number of days required for the average active deer hunter to see a lion while hunting deer increased between 2000 and 2001 from 263 to 353 days. The number of hunter days per lion seen increased from 173 to 232. These indicators, and the decline in percent of hunters observing one or more lions from 2.62 to 1.93%, suggest it was more difficult to observe lions while deer hunting in 2001 than in 2000.

The ratio **Lions/Observer**, which standardizes lions seen to lion observers, may or may not be useful as a comparable indicator of lion observability, but it may prove useful in tracking lion sighting survey response characteristics over time. This indicator showed little change between 2000 and 2001 (1.525 vs 1.520).

## Table 3: Statistical Confidence and Relative Precision

**Table 3** presents measures of statistical confidence for the key estimates given in **Table 2**. Estimates of Montana resident Deer Hunters, Lion Observers, and Lions Seen are presented, along with Lower and Upper 80% Confidence Bounds, and Percent Relative Precision. As in **Table 2**, these estimates are presented at 5 different levels of Location: Statewide, Regional, Lion

Management Area, Lion Regulations/Quota Unit, and the Deer Hunting District. (See **Appendix A.**)  
**The following statistics are presented by Location:**

- **Deer Hunters:** Point estimate of number of active MT resident deer hunters.
- **Hunters Low Bnd:** Lower bound 80% confidence bound on hunters.
- **Hunters Up Bnd:** Upper bound 80% confidence bound on hunters.
- **Hunter % RPrec:** Percent by which the upper 80% Confidence Bound differs from the point estimate for active MT resident deer hunters.
- **Hunter Observ:** Point estimate of number of deer hunters observing one or more mountain lions while deer hunting. Lion Observers.
- **Observ Low Bnd:** Lower bound 80% confidence bound on lion observers.
- **Observ Up Bnd:** Upper bound 80% confidence bound on lion observers.
- **Observ % RPrec:** Percent by which the upper 80% Confidence Bound differs from the point estimate for lion observers.
- **Lions Seen:** Point estimate of number of lions seen by deer hunters while deer hunting.
- **Lions Low Bnd:** Lower bound 80% confidence bound on lions seen.
- **Lions Up Bnd:** Upper bound 80% confidence bound on lions seen.
- **Lions % RPrec:** Percent by which the upper 80% Confidence Bound differs from the point estimate for lions seen.

Confidence bounds and percent relative precision are indicators of the statistical variability of an estimate. The wider the confidence bound relative to the value of the estimate, the higher the variability (uncertainty) in the estimate, and the lower our confidence the estimate comes close to the true value of the statistic. Percent relative precision presents the concept of variability (uncertainty) in a form that is comparable for differing measures of the same statistic. It standardizes the width of the confidence bound by comparing it to the value of the estimate. The lower the value of percent relative precision for an estimate, the lower the variability (uncertainty) in the estimate, and the greater our confidence the estimate comes close to the true value of the statistic.

Relative precision of a hunter survey estimate depends on the expansion factor used to expand the underlying survey response summary count into a statistical point estimate, and the size of the underlying survey response summary count. The expansion factor is basically the inverse of the response rate ("Number of Resident Deer License Holders" divided by "Number of Resident Deer License Holders Responding to the Deer Survey"). A low expansion factor (close to 1) indicates a high response rate, and relatively good statistical precision (low variability, low uncertainty) in the estimate, relative to a high expansion factor. The second factor influencing precision of a survey based estimate is the magnitude of the sum of raw survey responses to a question, such as "Did you Hunt?" (Hunter estimate), "How many Days? (Hunter Days estimate), "Did you see Lion(s)" (Lion Observer estimate), and "How many Lions did you see?" (Lions Seen estimate). Larger raw response tallies indicating hunting or lion observations result in relatively good statistical precision (low variability, low uncertainty) in the expanded estimate, relative to smaller raw response tallies. As responses are lumped into larger groupings, such as grouping responses by Hunting District into responses by Management Area, the underlying raw response tallies increase, therefore statistical precision in the expanded estimate improves (variability decreases).

The **LY2001 Deer Hunting Report** resident expansion factor (**2.755**) was used to estimate values of all the statistics in this report at all levels and values of Location. Thus, precision of estimates of deer hunting and lion sighting statistics will differ only according to the raw response tallies of the surveys returned from each Location. Estimates for hunting Districts popular with deer hunters will be more precise (better) than those from Districts less frequented. Sighting estimates from Districts where lions are more commonly observed will tend to be more precise (better) than those from Districts where lions are less common. This holds true for the higher levels of Location as well. Estimates at the higher levels of Location, which lump the survey responses into larger and larger groupings, will have better precision the more the responses are lumped together.

**Table 3** illustrates the differences in Percent Relative Precision between different areas within the same level of Location, and differences between the different levels of Location. At the Hunting District level, average relative precision for estimates of Deer Hunters, Lion Observers, and Lions Seen were 7.2%, 56.9%, and 49.9%, respectively, over the 135 Districts where lions were reported. The estimates of active deer hunters have much better relative precision than the lion sighting estimates because few deer hunters observe lions (average of 1.93%), thus the raw tally of lion observer responses is very low compared to active deer hunter responses (**Appendix B**). Districts with the best relative precision in the estimate of Lion Observers are 100 (15.8%), 102 (19.0%), 103 (19.3%), and 101 (19.7%).

At the Lion Regulations/Quota Unit level of Location, average relative precision for the estimate of Lion Observers is 41.9% over the 73 Units where lions were reported. The 3 Regs/Quota Units with the best relative precision were R202 (15.8%), R202 (18.1%), and R283 (18.4%). Even though lion observability is low in the R700 Unit (% Observers=0.64%), the estimate of Lion Observers (85) has a good relative precision compared to other Units because it includes all of Region 7, a large area popular with deer hunters, and thus lumps together a large number of responding active hunters (4,836) compared to other Units, which are generally much smaller groupings of Districts with fewer respondents.

At the Lion Management Area level of Location, average relative precision for the estimate of Lion Observers was 34.2% over the 26 areas where lions were reported. The 3 Management Areas with the best relative precision were R1-Salish (M1C, 9.2%), R2-Blackfoot (M2D, 11.2%) and R4-Mountain Foothills (M4B, 12.5%).

At the Regional level of Location, average relative precision for the estimate of Lion Observers is 24.7% over the 8 Regions where lions were reported. Region 1 and 2 had the best relative precision in the estimate (6.8%), while Region 6 had the worst of the known Regions (34.1%). Relative precision in the Statewide estimate of Lion Observers is 3.56%. Confidence in the Statewide estimate of lion observers declined a bit between 2000 and 2001. (Percent relative precision increased from  $\pm 3.21\%$  to  $\pm 3.56\%$  of the value of the estimate.)

The precision of estimates will ultimately dictate how useful this survey of lion sightings by deer hunters will be as a trend indicator for lion density over time. Variability in the estimates must be low enough to permit detection of real underlying trends in lion density over time, at levels of Location which represent areas which are meaningful to lion management. Ratios of lion observation statistics to deer hunting effort statistics (see Table 2 description above) will likely prove more stable and more directly reflective of lion densities in a given area over time than will stand alone estimates of total Lion Observers or total Lions Seen.

## Table 4: Additional Lion Observation Statistics

**Table 4** presents additional estimates and ratios of estimates based on responses to questions on the deer hunting/harvest and mountain lion sighting survey response forms. Estimates of MT resident Deer Hunters, Lion Observers, Lion Observation Districts, Lion Observation Days, and Lions Seen are presented, along with meaningful ratios of lion observation statistics. The additional statistics presented here may prove of some value in helping detect trends in lion densities, or trends in survey response characteristics, over time. These estimates are presented at 5 different levels of Location: Statewide, Regional, Lion Management Area, Lion Regulations/Quota Unit, and the Deer Hunting District. **The following statistics are presented by Location:**

- **Deer Hunters:** Point estimate of number of active MT resident deer hunters.
- **Hunter Observ:** Point estimate of number of deer hunters observing one or more mountain lions while deer hunting. Lion Observers.

- **District Observ:** Point estimate of number of deer Districts where lions were observed by deer hunters. This is presented only at the State and Regional levels. Lion Observation Districts.
- **Observ Days:** Point estimate of number of days spent hunting by deer hunters in Districts where lions were observed. Observation Days.
- **Lions Seen:** Point estimate of number of lions seen by deer hunters while deer hunting.
- **Percent Observ:** Ratio of observers to hunters. An estimate of percent of deer hunters who were also lion observers.
- **Lions/Observ:** Ratio of Lions Seen to Lion Observers. An estimate of the average number of lions seen by a lion observer hunting for deer.
- **ObsDist/Observ:** Ratio of Lion Observation Districts to Lion Observers. The average number of Districts in which a Lion Observer see lions. This is presented only at the State and Regional levels.
- **ObsDays/Observ:** Ratio of Observer Days to Lion Observers. The average number of observation days a lion observer needs to observe mountain lions.
- **ObsDays/ObsDist:** Ratio of Observer Days to Observation Districts. The average number of observation days a spent hunting in Districts where lions were observed.
- **Lions/ObsDay:** Ratio of Lions Seen to Observer Days. An estimate of the average number of lions seen per observation day.
- **Lions/ObsDist:** Ratio of Lion Seen to Lion Observation Districts. The average number of lions seen per lion observation District. This is presented only at the State and Regional levels.

## Appendix A: Lion Mgmt Areas, Regs/Quota Units, and Districts

**Appendix A** presents Lion Hunting Districts (same as Deer Districts) sorted by Region and Management Area. Descriptive names of Management Areas are given. Lion Regulation/Quota Units are also defined. This table shows which Districts are grouped into the higher levels of Location, as used in this report.

## Appendix B: Non-expanded Response Summary Statistics

**Appendix B** presents the non-expanded raw summary tallies of the linked Deer Hunter and Lion Sighting Survey responses. Tallies of responding Deer Hunters and Lion Observers are listed, along with sums of reported Districts Hunted, Hunter Days, Observation Districts, Observation Days, and Lions Seen. The ratio Percent Observers is also given. These raw response statistics are presented at 5 different levels of Location: Statewide, Regional, Lion Management Area, Lion Regulations/Quota Unit, and the Deer Hunting District. **The following statistics are presented by Location:**

- **Responding Hunters:** Number of MT resident deer survey respondents reporting active hunting.
- **District Hunted:** Sum of Districts hunted for active MT resident deer survey respondents.
- **Hunter Days:** Sum of hunter days for active MT resident deer survey respondents.
- **Hunter Observ:** Number of active MT resident deer survey respondents reporting the sighting of one or more mountain lions while deer hunting. Respondent Lion Observers.
- **District Observ:** Sum of Districts reported where lions were observed by active MT resident deer survey respondents.
- **Observ Days:** Sum of hunter days reported where lions were observed by active MT resident deer survey respondents.
- **Lions Seen:** Sum of reported lions seen by active MT resident deer survey respondents.

- **Percent Observ:** Ratio of Responding Active Hunters to Respondent Lion Observers. An estimate of percent of deer hunters who were also lion observers.

Note that all the ratios of mountain lion sighting and deer hunting effort estimates provided in **Tables 2 and 4** can be computed from the underlying response summary statistics given in **Appendix B**. They remain the same whether computed from the underlying raw tallies and sums, or the expanded statistical estimates. Ratios of non-expanded summary statistics estimate true values of meaningful population statistics. Thus, it is not necessary to expand the survey response summary statistics to obtain potentially meaningful indicators of mountain lion density.

## **Appendix C: Statistical Estimates Data File Description**

**Appendix C** presents a description of a data file of expanded estimates of “Mountain Lion Sighting while Deer Hunting” survey statistics. This data set contains all the estimates used to generate **Tables 2, 3, and 4**. It is available in compressed form for electronic distribution. It can be imported into a variety of data handling software. For example, this data set can be imported into a spreadsheet and sorted, selected, and formatted as desired for tabular or graphical presentation.

**2001  
Mountain Lion Sightings  
While Deer Hunting**

**Tables of Expanded  
Statistical Estimates**

**Table 1  
Statewide Overview of Montana Resident  
Deer Hunters and Harvest, and Lion Observers**

**Table 2  
Deer Hunting Effort and Lion Observations**

**Table 3  
Statistical Confidence and Relative Precision**

**Table 4  
Additional Lion Observation Statistics**

**Tables 2, 3, and 4 presented by Location as follows:**

**Statewide and Regional  
By Lion Management Area  
By Lion Regulations/Quota Unit  
By Hunting District**



TABLE 1: STATEWIDE OVERVIEW

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statewide Deer Hunters and Harvest, and Lion Observers  
By Conservation Prefix of Hunter

| Cons Pfx | Conservation License Name | Deer Hunters | Hunters Low Bnd | Hunters Up Bnd | Success S Hunter Low Bnd | Success S Hunter Up Bnd | Deer Harvest Low Bnd | Deer Harvest Up Bnd | Harvest Percent Success | Kill Per Hunter | Mtn Observers Low Bnd | Mtn Observers Up Bnd | Pcnt Observers |      |
|----------|---------------------------|--------------|-----------------|----------------|--------------------------|-------------------------|----------------------|---------------------|-------------------------|-----------------|-----------------------|----------------------|----------------|------|
| ALL      | All MT Resident           | 117,526      | 116,944         | 118,109        | 71,598                   | 71,144                  | 72,053               | 90,451              | 89,940                  | 90,962          | 60.9                  | 0.770                | 2,354          | 1.93 |
| 09       | Sports no Bear            | 10,859       | 10,682          | 11,036         | 6,541                    | 6,404                   | 6,679                | 8,751               | 8,592                   | 8,910           | 60.2                  | 0.806                | 234            | 1.93 |
| 11       | Sports w/ Bear            | 13,262       | 13,066          | 13,458         | 8,363                    | 8,208                   | 8,518                | 11,543              | 11,360                  | 11,725          | 63.1                  | 0.870                | 479            | 3.35 |
| 12       | R Conservation            | 43,851       | 43,495          | 44,206         | 26,367                   | 26,091                  | 26,643               | 31,713              | 31,410                  | 32,015          | 60.1                  | 0.723                | 677            | 1.45 |
| 19       | R Cons w/ Fish            | 40,966       | 40,622          | 41,309         | 24,841                   | 24,573                  | 25,108               | 31,443              | 31,141                  | 31,744          | 60.6                  | 0.768                | 844            | 1.94 |
| 34       | R Cons Disabled           | 2,017        | 1,941           | 2,093          | 1,353                    | 1,290                   | 1,415                | 1,810               | 1,738                   | 1,883           | 67.1                  | 0.898                | 104            | 4.37 |
| 40       | Youth Sports              | 4,778        | 4,661           | 4,895          | 3,067                    | 2,973                   | 3,161                | 3,783               | 3,679                   | 3,888           | 64.2                  | 0.792                | 92             | 1.61 |
| 74       | Flathead Cons             | 1,744        | 1,673           | 1,815          | 1,031                    | 976                     | 1,085                | 1,367               | 1,304                   | 1,430           | 59.1                  | 0.784                | 33             | 1.42 |
| 81       | FH Cons Disabled          | 50           | 38              | 62             | 36                       | 26                      | 46                   | 41                  | 30                      | 52              | 72.2                  | 0.833                | 0              | 0.00 |

By Conservation Prefix and Success of Hunter

| Cons Pfx | Conservation License Name | Killed a Deer | Deer Hunters | Hunters Low Bnd | Hunters Up Bnd | Mtn Observers Low Bnd | Mtn Observers Up Bnd | Observers Percent Success | Kill Per Hunter | Mtn Observers Low Bnd | Mtn Observers Up Bnd | Observers Pcnt |
|----------|---------------------------|---------------|--------------|-----------------|----------------|-----------------------|----------------------|---------------------------|-----------------|-----------------------|----------------------|----------------|
| ALL      | All MT Resident           | All           | 117,526      | 116,944         | 118,109        | 2,273                 | 2,192                | 60.9                      | 0.770           | 2,273                 | 2,192                | 1.93           |
|          |                           | No            | 45,928       | 45,564          | 46,292         | 934                   | 882                  | 60.1                      | 0.723           | 934                   | 882                  | 2.03           |
|          |                           | Yes           | 71,598       | 71,144          | 72,053         | 1,339                 | 1,277                | 60.6                      | 0.768           | 1,339                 | 1,401                | 1.87           |
| 09       | Sports no Bear            | All           | 10,859       | 10,682          | 11,036         | 209                   | 185                  | 60.2                      | 0.806           | 209                   | 185                  | 1.93           |
|          |                           | No            | 4,318        | 4,206           | 4,429          | 99                    | 82                   | 63.1                      | 0.870           | 99                    | 82                   | 2.30           |
|          |                           | Yes           | 6,541        | 6,404           | 6,679          | 110                   | 92                   | 60.1                      | 0.723           | 110                   | 92                   | 1.68           |
| 11       | Sports w/ Bear            | All           | 13,262       | 13,066          | 13,458         | 444                   | 408                  | 60.1                      | 0.723           | 444                   | 408                  | 3.35           |
|          |                           | No            | 4,899        | 4,780           | 5,018          | 163                   | 141                  | 60.6                      | 0.768           | 163                   | 141                  | 3.32           |
|          |                           | Yes           | 8,363        | 8,208           | 8,518          | 281                   | 253                  | 67.1                      | 0.898           | 281                   | 310                  | 3.36           |
| 12       | R Conservation            | All           | 43,851       | 43,495          | 44,206         | 634                   | 591                  | 60.6                      | 0.768           | 634                   | 591                  | 1.45           |
|          |                           | No            | 17,483       | 17,259          | 17,708         | 303                   | 274                  | 64.2                      | 0.792           | 303                   | 333                  | 1.73           |
|          |                           | Yes           | 26,367       | 26,091          | 26,643         | 331                   | 300                  | 59.1                      | 0.784           | 331                   | 362                  | 1.25           |
| 19       | R Cons w/ Fish            | All           | 40,966       | 40,622          | 41,309         | 796                   | 748                  | 67.1                      | 0.898           | 796                   | 844                  | 1.94           |
|          |                           | No            | 16,125       | 15,909          | 16,341         | 306                   | 276                  | 64.2                      | 0.792           | 306                   | 336                  | 1.90           |
|          |                           | Yes           | 24,841       | 24,573          | 25,108         | 490                   | 453                  | 59.1                      | 0.784           | 490                   | 528                  | 1.97           |
| 34       | R Cons Disabled           | All           | 2,017        | 1,941           | 2,093          | 88                    | 72                   | 67.1                      | 0.898           | 88                    | 104                  | 4.37           |
|          |                           | No            | 664          | 620             | 708            | 28                    | 19                   | 64.2                      | 0.792           | 28                    | 36                   | 4.15           |
|          |                           | Yes           | 1,353        | 1,290           | 1,415          | 61                    | 47                   | 59.1                      | 0.784           | 61                    | 74                   | 4.48           |
| 40       | Youth Sports              | All           | 4,778        | 4,661           | 4,895          | 77                    | 62                   | 67.1                      | 0.898           | 77                    | 92                   | 1.61           |
|          |                           | No            | 1,711        | 1,641           | 1,781          | 28                    | 19                   | 64.2                      | 0.792           | 28                    | 36                   | 1.61           |
|          |                           | Yes           | 3,067        | 2,973           | 3,161          | 50                    | 38                   | 59.1                      | 0.784           | 50                    | 62                   | 1.62           |
| 74       | Flathead Cons             | All           | 1,744        | 1,673           | 1,815          | 25                    | 16                   | 67.1                      | 0.898           | 25                    | 33                   | 1.42           |
|          |                           | No            | 714          | 668             | 759            | 8                     | 3                    | 64.2                      | 0.792           | 8                     | 13                   | 1.16           |
|          |                           | Yes           | 1,031        | 976             | 1,085          | 17                    | 10                   | 59.1                      | 0.784           | 17                    | 23                   | 1.60           |
| 81       | FH Cons Disabled          | All           | 50           | 38              | 62             | 0                     | 0                    | 72.2                      | 0.833           | 0                     | 0                    | 0.00           |
|          |                           | No            | 14           | 7               | 20             | 0                     | 0                    | 72.2                      | 0.833           | 0                     | 0                    | 0.00           |
|          |                           | Yes           | 36           | 26              | 46             | 0                     | 0                    | 72.2                      | 0.833           | 0                     | 0                    | 0.00           |



TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

|            |              |                                                                                                                                                                          |             |                  |              |                 |               |                       |            |                |                  |              |               |            |                |               |      |        |  |
|------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|--------------|-----------------|---------------|-----------------------|------------|----------------|------------------|--------------|---------------|------------|----------------|---------------|------|--------|--|
| Thu Oct 31 |              | Montana Fish Wildlife and Parks<br>2001 Mountain Lion Sightings while Deer Hunting (MT Residents)<br>Deer Hunting Effort and Lion Observations<br>Statewide and Regional |             |                  |              |                 |               |                       |            |                |                  |              |               |            |                |               |      | page 1 |  |
| Location   | Deer Hunters | District Hunted                                                                                                                                                          | Hunter Days | District /Hunter | Days/ Hunter | District Observ | Hunter Observ | Days/ District Observ | Lions Seen | Percent Observ | District /Observ | Days/ Observ | Hunters /Lion | Days /Lion | District /Lion | Lions/ Observ |      |        |  |
| State      | 117,526      | 156,337                                                                                                                                                                  | 802,112     | 1.33             | 6.82         | 5.13            | 2,273         | 2,337                 | 20,589     | 3,455          | 1.93             | 68.77        | 352.85        | 34.01      | 232.14         | 45.24         | 1.52 |        |  |
| Region 1   | 20,641       | 26,858                                                                                                                                                                   | 157,442     | 1.30             | 7.63         | 5.86            | 620           | 637                   | 5,886      | 937            | 3.00             | 43.32        | 253.95        | 22.03      | 168.05         | 28.67         | 1.51 |        |  |
| Region 2   | 19,974       | 26,406                                                                                                                                                                   | 169,021     | 1.32             | 8.46         | 6.40            | 620           | 639                   | 5,968      | 937            | 3.10             | 42.59        | 272.62        | 21.32      | 180.41         | 28.19         | 1.51 |        |  |
| Region 3   | 23,821       | 29,277                                                                                                                                                                   | 157,445     | 1.23             | 6.61         | 5.38            | 386           | 391                   | 3,621      | 598            | 1.62             | 75.89        | 408.14        | 39.84      | 263.31         | 48.96         | 1.55 |        |  |
| Region 4   | 24,926       | 30,938                                                                                                                                                                   | 131,494     | 1.24             | 5.28         | 4.25            | 295           | 300                   | 2,612      | 479            | 1.18             | 104.93       | 445.99        | 51.99      | 274.26         | 64.53         | 1.63 |        |  |
| Region 5   | 15,910       | 17,913                                                                                                                                                                   | 72,507      | 1.13             | 4.56         | 4.05            | 254           | 254                   | 1,653      | 342            | 1.59             | 70.66        | 286.02        | 46.56      | 212.21         | 52.43         | 1.35 |        |  |
| Region 6   | 9,418        | 10,468                                                                                                                                                                   | 46,821      | 1.11             | 4.97         | 4.47            | 25            | 25                    | 182        | 41             | 0.26             | 422.11       | 1888.00       | 227.87     | 1132.80        | 253.27        | 1.67 |        |  |
| Region 7   | 13,348       | 14,359                                                                                                                                                                   | 66,666      | 1.08             | 4.99         | 4.64            | 85            | 88                    | 653        | 110            | 0.64             | 168.10       | 780.45        | 121.10     | 604.85         | 130.28        | 1.29 |        |  |
| Region U   | 118          | 118                                                                                                                                                                      | 716         | 1.00             | 6.05         | 6.05            | 3             | 3                     | 14         | 11             | 2.33             | 43.00        | 260.00        | 10.75      | 65.00          | 10.75         | 4.00 |        |  |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Deer Hunting Effort and Lion Observations  
By Lion Management Area

| Location | Lion Mgmt Area Name    | Deer<br>Hunters | Hunter<br>Days | Days/<br>Hunter | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Days/<br>Observ | Hunters<br>/Lion | Days<br>/Lion | Lions/<br>Observ |
|----------|------------------------|-----------------|----------------|-----------------|------------------|----------------|---------------|-------------------|-----------------|------------------|---------------|------------------|
| M1A      | CABINET-YAAK           | 3,657           | 26,160         | 7.15            | 157              | 1,527          | 270           | 4.30              | 166.56          | 13.54            | 96.88         | 1.72             |
| M1B      | CLARK FORK             | 2,789           | 22,333         | 8.01            | 36               | 488            | 36            | 1.28              | 623.46          | 77.85            | 623.46        | 1.00             |
| M1C      | SALISH                 | 11,876          | 76,803         | 6.47            | 339              | 3,196          | 490           | 2.85              | 226.61          | 24.21            | 156.59        | 1.45             |
| M1D      | BOB MARSHALL-MISSIONS  | 3,386           | 19,699         | 5.82            | 52               | 435            | 88            | 1.55              | 376.26          | 38.41            | 223.41        | 1.68             |
| M1E      | WHITEFISH              | 1,590           | 7,991          | 5.03            | 39               | 212            | 50            | 2.43              | 207.14          | 32.06            | 161.11        | 1.29             |
| M1F      | URBAN                  | 805             | 4,194          | 5.21            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| M1U      | REGION 1 UNKNOWN       | 61              | 262            | 4.32            | 3                | 28             | 3             | 4.55              | 95.00           | 22.00            | 95.00         | 1.00             |
| M2A      | LOWER CLARK FORK       | 4,445           | 33,349         | 7.50            | 141              | 1,664          | 226           | 3.16              | 237.31          | 19.67            | 147.60        | 1.61             |
| M2B      | BITTERROOT             | 7,594           | 61,871         | 8.15            | 157              | 1,540          | 220           | 2.07              | 393.93          | 34.45            | 280.68        | 1.40             |
| M2C      | ROCK CR-DEERLODGE      | 3,356           | 26,888         | 8.01            | 94               | 981            | 149           | 2.79              | 287.00          | 22.56            | 180.70        | 1.59             |
| M2D      | BLACKFOOT              | 7,015           | 46,391         | 6.61            | 231              | 1,711          | 336           | 3.30              | 200.43          | 20.87            | 138.00        | 1.45             |
| M2U      | REGION 2 UNKNOWN       | 72              | 521            | 7.27            | 6                | 72             | 6             | 7.69              | 94.50           | 13.00            | 94.50         | 1.00             |
| M3A      | BIGHOLE                | 3,893           | 27,987         | 7.19            | 63               | 595            | 91            | 1.63              | 441.61          | 42.82            | 307.79        | 1.43             |
| M3B      | GRAVELLYS-PIONEERS     | 7,159           | 39,491         | 5.52            | 110              | 749            | 163           | 1.54              | 358.30          | 44.03            | 242.92        | 1.48             |
| M3C      | YELLOWSTONE            | 4,717           | 26,163         | 5.55            | 50               | 463            | 61            | 1.05              | 527.50          | 77.82            | 431.59        | 1.22             |
| M3D      | BELTS-BRIDGERS-ELKHORN | 10,589          | 63,690         | 6.01            | 168              | 1,813          | 284           | 1.59              | 378.92          | 37.31            | 224.41        | 1.69             |
| M3U      | REGION 3 UNKNOWN       | 33              | 113            | 3.42            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| M4A      | EAST FRONT             | 2,929           | 13,626         | 4.65            | 44               | 422            | 77            | 1.51              | 309.06          | 37.96            | 176.61        | 1.75             |
| M4B      | MOUNTAIN-FOOTHILLS     | 12,309          | 63,279         | 5.14            | 185              | 1,764          | 298           | 1.50              | 342.76          | 41.36            | 212.64        | 1.61             |
| M4C      | PRAIRE-AGRICULTURE     | 12,309          | 54,073         | 4.39            | 66               | 413            | 102           | 0.54              | 817.67          | 120.73           | 530.38        | 1.54             |
| M4U      | REGION 4 UNKNOWN       | 124             | 515            | 4.16            | 3                | 14             | 3             | 2.22              | 187.00          | 45.00            | 187.00        | 1.00             |
| M5A      | BEARTOOTH FACE         | 2,670           | 11,107         | 4.16            | 33               | 212            | 39            | 1.24              | 335.92          | 69.21            | 287.93        | 1.17             |
| M5B      | MOUNTAIN FOOTHILLS     | 3,229           | 13,050         | 4.04            | 72               | 551            | 110           | 2.22              | 182.15          | 29.30            | 118.40        | 1.54             |
| M5C      | PRAIRE-AGRICULTURE     | 10,997          | 48,031         | 4.37            | 146              | 879            | 190           | 1.33              | 328.89          | 57.84            | 252.62        | 1.30             |
| M5U      | REGION 5 UNKNOWN       | 74              | 320            | 4.30            | 3                | 11             | 3             | 3.70              | 116.00          | 27.00            | 116.00        | 1.00             |
| M6A      | REGION 6 DISTRICTS     | 9,410           | 46,796         | 4.97            | 25               | 182            | 41            | 0.26              | 1887.00         | 227.67           | 1132.20       | 1.67             |
| M6U      | REGION 6 UNKNOWN       | 8               | 25             | 3.00            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| M7A      | REGION 7 DISTRICTS     | 13,325          | 66,569         | 5.00            | 85               | 653            | 110           | 0.64              | 779.32          | 120.90           | 603.98        | 1.29             |
| M7U      | REGION 7 UNKNOWN       | 22              | 96             | 4.38            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| M9U      | REGION UNKNOWN         | 118             | 716            | 6.05            | 3                | 14             | 11            | 2.33              | 260.00          | 10.75            | 65.00         | 4.00             |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Deer Hunting Effort and Lion Observations  
By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit       | Hunters | Hunter Days | Days/<br>Hunter | Hunter Observ | Observ Days | Lions Seen | Percent Observ | Days/<br>Observ | Hunters<br>/Lion | Days<br>/Lion | Lions/<br>Observ |
|----------|----------------------------|---------|-------------|-----------------|---------------|-------------|------------|----------------|-----------------|------------------|---------------|------------------|
| R100     | HD:100                     | 2,568   | 15,698      | 6.11            | 116           | 1,177       | 190        | 4.51           | 135.64          | 13.51            | 82.57         | 1.64             |
| R101     | HD:101                     | 2,375   | 15,260      | 6.42            | 74            | 923         | 124        | 3.13           | 205.11          | 19.16            | 123.07        | 1.67             |
| R102     | HD:102                     | 3,279   | 16,974      | 5.18            | 80            | 639         | 105        | 2.44           | 212.41          | 31.32            | 162.11        | 1.31             |
| R103     | HD:103                     | 3,469   | 19,867      | 5.73            | 77            | 697         | 116        | 2.22           | 257.50          | 29.98            | 171.67        | 1.50             |
| R104     | HD:104                     | 1,678   | 10,463      | 6.23            | 47            | 350         | 80         | 2.79           | 223.35          | 21.00            | 130.93        | 1.71             |
| R110     | HD:110                     | 1,590   | 7,991       | 5.03            | 39            | 212         | 50         | 2.43           | 207.14          | 32.06            | 161.11        | 1.29             |
| R120     | HD:120                     | 2,408   | 12,568      | 5.22            | 58            | 581         | 77         | 2.40           | 217.19          | 31.21            | 162.89        | 1.33             |
| R121     | HD:121                     | 2,105   | 15,557      | 7.39            | 30            | 400         | 30         | 1.44           | 513.27          | 69.45            | 513.27        | 1.00             |
| R122     | HD:122                     | 2,039   | 12,135      | 5.95            | 52            | 355         | 69         | 2.57           | 231.79          | 29.60            | 176.16        | 1.32             |
| R123     | HD:123                     | 416     | 2,824       | 6.79            | 6             | 88          | 6          | 1.32           | 512.50          | 75.50            | 512.50        | 1.00             |
| R124     | HD:124                     | 457     | 3,951       | 8.64            | 0             | 0           | 0          | 0.00           | -9.90           | -9.90            | -9.90         | -9.90            |
| R130     | HD:130                     | 1,786   | 9,099       | 5.10            | 30            | 265         | 58         | 1.70           | 300.18          | 30.86            | 157.24        | 1.91             |
| R132     | HD:132,170                 | 1,887   | 11,466      | 6.07            | 11            | 113         | 17         | 0.58           | 1040.25         | 114.17           | 693.50        | 1.50             |
| R140     | HD:140                     | 430     | 2,006       | 4.67            | 8             | 33          | 8          | 1.92           | 242.67          | 52.00            | 242.67        | 1.00             |
| R141     | HD:141                     | 146     | 829         | 5.68            | 3             | 6           | 3          | 1.89           | 301.00          | 53.00            | 301.00        | 1.00             |
| R150     | HD:150,151                 | 88      | 493         | 5.59            | 3             | 19          | 3          | 3.13           | 179.00          | 32.00            | 179.00        | 1.00             |
| R199     | HD:R1 UNKN                 | 61      | 262         | 4.32            | 3             | 28          | 3          | 4.55           | 95.00           | 22.00            | 95.00         | 1.00             |
| R200     | HD:200,201                 | 2,342   | 16,533      | 7.06            | 55            | 692         | 94         | 2.35           | 300.00          | 25.00            | 176.47        | 1.70             |
| R202     | HD:202,203                 | 2,651   | 16,817      | 6.34            | 88            | 973         | 132        | 3.33           | 190.72          | 20.04            | 127.15        | 1.50             |
| R204     | HD:204,260,261             | 3,905   | 29,693      | 7.60            | 61            | 532         | 88         | 1.55           | 489.82          | 44.28            | 336.75        | 1.45             |
| R210     | HD:210,211,216             | 1,290   | 8,388       | 6.50            | 50            | 452         | 85         | 3.85           | 169.11          | 15.10            | 98.19         | 1.72             |
| R212     | HD:212,215                 | 1,728   | 14,166      | 8.20            | 41            | 468         | 58         | 2.39           | 342.73          | 29.86            | 244.81        | 1.40             |
| R213     | HD:213,214                 | 579     | 4,334       | 7.49            | 6             | 61          | 6          | 0.95           | 786.50          | 105.00           | 786.50        | 1.00             |
| R240     | HD:240                     | 2,053   | 12,262      | 5.97            | 33            | 284         | 47         | 1.61           | 370.83          | 43.82            | 261.76        | 1.42             |
| R250     | HD:250                     | 1,116   | 8,454       | 7.58            | 41            | 485         | 61         | 3.70           | 204.53          | 18.41            | 139.45        | 1.47             |
| R270     | HD:270                     | 1,874   | 11,463      | 6.12            | 22            | 240         | 25         | 1.18           | 520.00          | 75.56            | 462.22        | 1.13             |
| R280     | HD:280,281,284,293         | 2,028   | 13,438      | 6.63            | 74            | 733         | 102        | 3.67           | 180.63          | 19.89            | 131.81        | 1.37             |
| R282     | HD:282                     | 182     | 846         | 4.65            | 6             | 33          | 6          | 3.03           | 153.50          | 33.00            | 153.50        | 1.00             |
| R283     | HD:283,285                 | 2,979   | 16,312      | 5.48            | 85            | 482         | 124        | 2.87           | 190.97          | 24.02            | 131.56        | 1.45             |
| R290     | HD:290,291,292             | 2,491   | 15,794      | 6.34            | 69            | 463         | 105        | 2.77           | 229.28          | 23.79            | 150.84        | 1.52             |
| R299     | HD:R2 UNKN                 | 72      | 521         | 7.27            | 6             | 72          | 6          | 7.69           | 94.50           | 13.00            | 94.50         | 1.00             |
| R300     | HD:300,302,328,329         | 1,113   | 6,357       | 5.71            | 22            | 152         | 25         | 1.98           | 288.38          | 44.89            | 256.33        | 1.13             |
| R301     | HD:301                     | 995     | 5,348       | 5.38            | 8             | 124         | 17         | 0.83           | 647.00          | 60.17            | 323.50        | 2.00             |
| R310     | HD:310,311,360,361,362     | 2,576   | 13,912      | 5.40            | 19            | 143         | 22         | 0.75           | 721.29          | 116.88           | 631.12        | 1.14             |
| R312     | HD:312,393                 | 2,631   | 13,775      | 5.23            | 41            | 504         | 52         | 1.57           | 333.27          | 50.26            | 263.11        | 1.27             |
| R313     | HD:313,316                 | 317     | 1,394       | 4.40            | 8             | 58          | 8          | 2.61           | 168.67          | 38.33            | 168.67        | 1.00             |
| R314     | HD:314                     | 609     | 2,910       | 4.78            | 8             | 36          | 8          | 1.36           | 352.00          | 73.67            | 352.00        | 1.00             |
| R315     | HD:315                     | 1,722   | 6,787       | 3.94            | 14            | 66          | 25         | 0.80           | 492.60          | 69.44            | 273.67        | 1.80             |
| R317     | HD:317                     | 595     | 2,598       | 4.37            | 6             | 102         | 6          | 0.93           | 471.50          | 108.00           | 471.50        | 1.00             |
| R318     | HD:318,350                 | 769     | 6,194       | 8.06            | 17            | 132         | 28         | 2.15           | 374.67          | 27.90            | 224.80        | 1.67             |
| R319     | HD:319,341                 | 942     | 6,486       | 6.88            | 19            | 212         | 22         | 2.05           | 336.29          | 42.75            | 294.25        | 1.14             |
| R320     | HD:320,333                 | 2,604   | 12,992      | 4.99            | 47            | 361         | 69         | 1.80           | 277.35          | 37.80            | 188.60        | 1.47             |
| R321     | HD:321,331,332             | 1,794   | 12,116      | 6.75            | 30            | 218         | 50         | 1.69           | 399.73          | 36.17            | 244.28        | 1.64             |
| R322     | HD:322,326,330             | 2,494   | 11,678      | 4.68            | 25            | 176         | 39         | 0.99           | 470.89          | 64.64            | 302.71        | 1.56             |
| R323     | HD:323,324,325,327         | 1,521   | 8,465       | 5.57            | 17            | 61          | 30         | 1.09           | 512.00          | 50.18            | 279.27        | 1.83             |
| R335     | HD:335,339,343             | 1,893   | 12,328      | 6.51            | 25            | 267         | 52         | 1.31           | 497.11          | 36.16            | 235.47        | 2.11             |
| R340     | HD:340                     | 1,518   | 9,385       | 6.18            | 14            | 165         | 19         | 0.91           | 681.20          | 78.71            | 486.57        | 1.40             |
| R370     | HD:370,380                 | 2,262   | 12,493      | 5.52            | 36            | 444         | 58         | 1.58           | 348.77          | 39.10            | 215.90        | 1.62             |
| R390     | HD:390,391,392             | 1,937   | 12,113      | 6.25            | 36            | 400         | 69         | 1.85           | 338.15          | 28.12            | 175.84        | 1.92             |
| R399     | HD:R3 UNKN                 | 33      | 113         | 3.42            | 0             | 0           | 0          | 0.00           | -9.90           | -9.90            | -9.90         | -9.90            |
| R400     | HD:400,401,403,406,415,441 | 4,122   | 18,941      | 4.59            | 11            | 36          | 22         | 0.27           | 1718.50         | 187.00           | 859.25        | 2.00             |
| R404     | HD:404,421,444,450         | 3,392   | 14,025      | 4.13            | 22            | 171         | 33         | 0.65           | 636.25          | 102.58           | 424.17        | 1.50             |
| R405     | HD:405,447,471             | 4,114   | 16,671      | 4.05            | 19            | 171         | 19         | 0.47           | 864.29          | 213.29           | 864.29        | 1.00             |
| R410     | HD:410,417,419,426         | 3,006   | 12,703      | 4.23            | 28            | 154         | 44         | 0.92           | 461.00          | 68.19            | 288.13        | 1.60             |
| R411     | HD:411,412                 | 4,348   | 21,776      | 5.01            | 66            | 805         | 118        | 1.52           | 329.29          | 36.70            | 183.79        | 1.79             |
| R413     | HD:413,432                 | 3,144   | 14,298      | 4.55            | 30            | 204         | 50         | 0.96           | 471.73          | 63.39            | 288.28        | 1.64             |
| R416     | HD:416,446,449,452,454     | 2,196   | 11,642      | 5.30            | 50            | 482         | 74         | 2.26           | 234.72          | 29.52            | 156.48        | 1.50             |
| R418     | HD:418,420,448             | 1,637   | 8,625       | 5.27            | 14            | 61          | 19         | 0.84           | 626.00          | 84.86            | 447.14        | 1.40             |
| R422     | HD:422,423,424,425,442     | 1,168   | 5,359       | 4.59            | 30            | 303         | 61         | 2.59           | 176.82          | 19.27            | 88.41         | 2.00             |
| R445     | HD:445,455                 | 1,887   | 6,938       | 3.68            | 25            | 212         | 36         | 1.31           | 279.78          | 52.69            | 193.69        | 1.44             |
| R499     | HD:R4 UNKN                 | 124     | 515         | 4.16            | 3             | 14          | 3          | 2.22           | 187.00          | 45.00            | 187.00        | 1.00             |
| R500     | HD:500,570                 | 3,293   | 12,254      | 3.72            | 30            | 303         | 47         | 0.92           | 404.27          | 70.29            | 261.59        | 1.55             |
| R502     | HD:502,575                 | 3,946   | 17,194      | 4.36            | 50            | 242         | 72         | 1.26           | 346.67          | 55.08            | 240.00        | 1.44             |
| R510     | HD:510                     | 526     | 2,764       | 5.25            | 30            | 251         | 36         | 5.76           | 91.18           | 14.69            | 77.15         | 1.18             |
| R511     | HD:511                     | 681     | 2,237       | 3.29            | 8             | 110         | 8          | 1.21           | 270.67          | 82.33            | 270.67        | 1.00             |
| R520     | HD:520                     | 1,516   | 6,577       | 4.34            | 22            | 171         | 28         | 1.45           | 298.38          | 55.00            | 238.70        | 1.25             |
| R530     | HD:530,590                 | 4,296   | 18,583      | 4.33            | 66            | 333         | 72         | 1.54           | 281.00          | 59.96            | 259.38        | 1.08             |
| R540     | HD:540                     | 609     | 2,560       | 4.20            | 11            | 91          | 19         | 1.81           | 232.25          | 31.57            | 132.71        | 1.75             |
| R560     | HD:560                     | 1,174   | 4,530       | 3.86            | 11            | 41          | 11         | 0.94           | 411.00          | 106.50           | 411.00        | 1.00             |
| R580     | HD:580                     | 1,527   | 5,489       | 3.60            | 22            | 99          | 47         | 1.44           | 249.00          | 32.59            | 117.18        | 2.13             |
| R599     | HD:R5 UNKN                 | 74      | 320         | 4.30            | 3             | 11          | 3          | 3.70           | 116.00          | 27.00            | 116.00        | 1.00             |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
 2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
 Deer Hunting Effort and Lion Observations  
 By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit   | Deer Hunters | Hunter Days | Days/ Hunter | Hunter Observ | Observ Days | Lions Seen | Percent Observ | Days/ Observ | Hunters /Lion | Days /Lion | Lions/ Observ |
|----------|------------------------|--------------|-------------|--------------|---------------|-------------|------------|----------------|--------------|---------------|------------|---------------|
| R600     | HD:600'S (NOT 680,690) | 7,255        | 36,510      | 5.03         | 11            | 52          | 14         | 0.15           | 3312.50      | 526.60        | 2650.00    | 1.25          |
| R680     | HD:680,690             | 2,348        | 10,286      | 4.38         | 14            | 130         | 28         | 0.59           | 746.60       | 85.20         | 373.30     | 2.00          |
| R699     | HD:R6 UNKN             | 8            | 25          | 3.00         | 0             | 0           | 0          | 0.00           | -9.90        | -9.90         | -9.90      | -9.90         |
| R700     | HD:700'S               | 13,325       | 66,569      | 5.00         | 85            | 653         | 110        | 0.64           | 779.32       | 120.90        | 603.98     | 1.29          |
| R799     | HD:R7 UNKN             | 22           | 96          | 4.38         | 0             | 0           | 0          | 0.00           | -9.90        | -9.90         | -9.90      | -9.90         |
| R999     | HD:REGION UNKN         | 118          | 716         | 6.05         | 3             | 14          | 11         | 2.33           | 260.00       | 10.75         | 65.00      | 4.00          |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Deer Hunting Effort and Lion Observations  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Days | Days/<br>Hunter | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Days/<br>Observ | Hunters<br>/Lion | Days<br>/Lion | Lions/<br>Observ |
|----------|-----------------|----------------|-----------------|------------------|----------------|---------------|-------------------|-----------------|------------------|---------------|------------------|
| 100      | 2,568           | 15,698         | 6.11            | 116              | 1,177          | 190           | 4.51              | 135.64          | 13.51            | 82.57         | 1.64             |
| 101      | 2,375           | 15,260         | 6.42            | 74               | 923            | 124           | 3.13              | 205.11          | 19.16            | 123.07        | 1.67             |
| 102      | 3,279           | 16,974         | 5.18            | 80               | 639            | 105           | 2.44              | 212.41          | 31.32            | 162.11        | 1.31             |
| 103      | 3,469           | 19,867         | 5.73            | 77               | 697            | 116           | 2.22              | 257.50          | 29.98            | 171.67        | 1.50             |
| 104      | 1,678           | 10,463         | 6.23            | 47               | 350            | 80            | 2.79              | 223.35          | 21.00            | 130.93        | 1.71             |
| 110      | 1,590           | 7,991          | 5.03            | 39               | 212            | 50            | 2.43              | 207.14          | 32.06            | 161.11        | 1.29             |
| 120      | 2,408           | 12,568         | 5.22            | 58               | 581            | 77            | 2.40              | 217.19          | 31.21            | 162.89        | 1.33             |
| 121      | 2,105           | 15,557         | 7.39            | 30               | 400            | 30            | 1.44              | 513.27          | 69.45            | 513.27        | 1.00             |
| 122      | 2,039           | 12,135         | 5.95            | 52               | 355            | 69            | 2.57              | 231.79          | 29.60            | 176.16        | 1.32             |
| 123      | 416             | 2,824          | 6.79            | 6                | 88             | 6             | 1.32              | 512.50          | 75.50            | 512.50        | 1.00             |
| 124      | 457             | 3,951          | 8.64            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 130      | 1,786           | 9,099          | 5.10            | 30               | 265            | 58            | 1.70              | 300.18          | 30.86            | 157.24        | 1.91             |
| 132      | 1,157           | 7,272          | 6.28            | 11               | 113            | 17            | 0.95              | 659.75          | 70.00            | 439.83        | 1.50             |
| 140      | 430             | 2,006          | 4.67            | 8                | 33             | 8             | 1.92              | 242.67          | 52.00            | 242.67        | 1.00             |
| 141      | 146             | 829            | 5.68            | 3                | 6              | 3             | 1.89              | 301.00          | 53.00            | 301.00        | 1.00             |
| 150      | 63              | 347            | 5.48            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 151      | 25              | 146            | 5.89            | 3                | 19             | 3             | 11.11             | 53.00           | 9.00             | 53.00         | 1.00             |
| 170      | 805             | 4,194          | 5.21            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 199      | 61              | 262            | 4.32            | 3                | 28             | 3             | 4.55              | 95.00           | 22.00            | 95.00         | 1.00             |
| 200      | 700             | 4,836          | 6.91            | 11               | 174            | 14            | 1.57              | 438.75          | 50.80            | 351.00        | 1.25             |
| 201      | 1,755           | 11,697         | 6.66            | 44               | 518            | 80            | 2.51              | 265.31          | 21.97            | 146.38        | 1.81             |
| 202      | 1,516           | 10,068         | 6.64            | 30               | 358            | 33            | 2.00              | 332.18          | 45.83            | 304.50        | 1.09             |
| 203      | 1,237           | 6,748          | 5.45            | 61               | 614            | 99            | 4.90              | 111.32          | 12.47            | 68.03         | 1.64             |
| 204      | 1,799           | 10,683         | 5.94            | 36               | 193            | 44            | 1.99              | 298.23          | 40.81            | 242.31        | 1.23             |
| 210      | 907             | 5,450          | 6.01            | 30               | 289            | 55            | 3.34              | 179.82          | 16.45            | 98.90         | 1.82             |
| 211      | 226             | 1,758          | 7.78            | 14               | 80             | 19            | 6.10              | 127.60          | 11.71            | 91.14         | 1.40             |
| 212      | 1,091           | 8,542          | 7.83            | 22               | 278            | 33            | 2.02              | 387.50          | 33.00            | 258.33        | 1.50             |
| 213      | 344             | 2,395          | 6.95            | 6                | 61             | 6             | 1.60              | 434.50          | 62.50            | 434.50        | 1.00             |
| 214      | 281             | 1,940          | 6.90            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 215      | 738             | 5,624          | 7.62            | 19               | 190            | 25            | 2.61              | 291.57          | 29.78            | 226.78        | 1.29             |
| 216      | 226             | 1,179          | 5.22            | 6                | 83             | 11            | 2.44              | 214.00          | 20.50            | 107.00        | 2.00             |
| 240      | 2,053           | 12,262         | 5.97            | 33               | 284            | 47            | 1.61              | 370.83          | 43.82            | 261.76        | 1.42             |
| 250      | 1,116           | 8,454          | 7.58            | 41               | 485            | 61            | 3.70              | 204.53          | 18.41            | 139.45        | 1.47             |
| 260      | 1,576           | 14,177         | 8.99            | 11               | 242            | 11            | 0.70              | 1286.25         | 143.00           | 1286.25       | 1.00             |
| 261      | 783             | 4,833          | 6.18            | 14               | 96             | 33            | 1.76              | 350.80          | 23.67            | 146.17        | 2.40             |
| 270      | 1,874           | 11,463         | 6.12            | 22               | 240            | 25            | 1.18              | 520.00          | 75.56            | 462.22        | 1.13             |
| 280      | 141             | 774            | 5.51            | 6                | 14             | 8             | 3.92              | 140.50          | 17.00            | 93.67         | 1.50             |
| 281      | 1,011           | 6,324          | 6.25            | 44               | 501            | 55            | 4.36              | 143.44          | 18.35            | 114.75        | 1.25             |
| 282      | 182             | 846            | 4.65            | 6                | 33             | 6             | 3.03              | 153.50          | 33.00            | 153.50        | 1.00             |
| 283      | 1,317           | 6,801          | 5.16            | 28               | 146            | 36            | 2.09              | 246.80          | 36.77            | 189.85        | 1.30             |
| 284      | 165             | 953            | 5.77            | 6                | 55             | 8             | 3.33              | 173.00          | 20.00            | 115.33        | 1.50             |
| 285      | 1,821           | 9,512          | 5.22            | 58               | 336            | 88            | 3.18              | 164.38          | 20.66            | 107.88        | 1.52             |
| 290      | 179             | 1,364          | 7.62            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 291      | 526             | 2,973          | 5.65            | 11               | 83             | 14            | 2.09              | 269.75          | 38.20            | 215.80        | 1.25             |
| 292      | 1,865           | 11,457         | 6.14            | 58               | 380            | 91            | 3.10              | 198.00          | 20.52            | 126.00        | 1.57             |
| 293      | 904             | 5,387          | 5.96            | 19               | 163            | 30            | 2.13              | 279.29          | 29.82            | 177.73        | 1.57             |
| 299      | 72              | 521            | 7.27            | 6                | 72             | 6             | 7.69              | 94.50           | 13.00            | 94.50         | 1.00             |
| 300      | 234             | 1,279          | 5.46            | 6                | 39             | 6             | 2.35              | 232.00          | 42.50            | 232.00        | 1.00             |
| 301      | 995             | 5,348          | 5.38            | 8                | 124            | 17            | 0.83              | 647.00          | 60.17            | 323.50        | 2.00             |
| 302      | 295             | 1,268          | 4.30            | 6                | 33             | 6             | 1.87              | 230.00          | 53.50            | 230.00        | 1.00             |
| 310      | 209             | 871            | 4.16            | 3                | 6              | 3             | 1.32              | 316.00          | 76.00            | 316.00        | 1.00             |
| 311      | 1,750           | 8,908          | 5.09            | 11               | 124            | 14            | 0.63              | 808.25          | 127.00           | 646.60        | 1.25             |
| 312      | 1,637           | 8,999          | 5.50            | 28               | 424            | 36            | 1.68              | 326.60          | 45.69            | 251.23        | 1.30             |
| 313      | 284             | 1,301          | 4.58            | 6                | 50             | 6             | 1.94              | 236.00          | 51.50            | 236.00        | 1.00             |
| 314      | 609             | 2,910          | 4.78            | 8                | 36             | 8             | 1.36              | 352.00          | 73.67            | 352.00        | 1.00             |
| 315      | 1,722           | 6,787          | 3.94            | 14               | 66             | 25            | 0.80              | 492.60          | 69.44            | 273.67        | 1.80             |
| 316      | 33              | 94             | 2.83            | 3                | 8              | 3             | 8.33              | 34.00           | 12.00            | 34.00         | 1.00             |
| 317      | 595             | 2,598          | 4.37            | 6                | 102            | 6             | 0.93              | 471.50          | 108.00           | 471.50        | 1.00             |
| 318      | 350             | 2,868          | 8.20            | 8                | 77             | 14            | 2.36              | 347.00          | 25.40            | 208.20        | 1.67             |
| 319      | 637             | 4,130          | 6.49            | 11               | 116            | 11            | 1.73              | 374.75          | 57.75            | 374.75        | 1.00             |
| 320      | 857             | 4,748          | 5.54            | 19               | 196            | 36            | 2.25              | 246.14          | 23.92            | 132.54        | 1.86             |
| 321      | 350             | 1,885          | 5.39            | 6                | 113            | 8             | 1.57              | 342.00          | 42.33            | 228.00        | 1.50             |
| 322      | 1,196           | 4,469          | 3.74            | 14               | 91             | 25            | 1.15              | 324.40          | 48.22            | 180.22        | 1.80             |
| 323      | 220             | 1,088          | 4.94            | 8                | 25             | 22            | 3.75              | 131.67          | 10.00            | 49.38         | 2.67             |
| 324      | 455             | 2,670          | 5.87            | 3                | 14             | 3             | 0.61              | 969.00          | 165.00           | 969.00        | 1.00             |
| 325      | 727             | 3,618          | 4.97            | 6                | 22             | 6             | 0.76              | 656.50          | 132.00           | 656.50        | 1.00             |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Deer Hunting Effort and Lion Observations  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Days | Days/<br>Hunter | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Days/<br>Observ | Hunters<br>/Lion | Days<br>/Lion | Lions/<br>Observ |
|----------|-----------------|----------------|-----------------|------------------|----------------|---------------|-------------------|-----------------|------------------|---------------|------------------|
| 326      | 829             | 3,940          | 4.75            | 6                | 61             | 8             | 0.66              | 715.00          | 100.33           | 476.67        | 1.50             |
| 327      | 196             | 1,088          | 5.56            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 328      | 198             | 1,127          | 5.68            | 6                | 44             | 8             | 2.78              | 204.50          | 24.00            | 136.33        | 1.50             |
| 329      | 482             | 2,684          | 5.57            | 6                | 36             | 6             | 1.14              | 487.00          | 87.50            | 487.00        | 1.00             |
| 330      | 601             | 3,268          | 5.44            | 6                | 25             | 6             | 0.92              | 593.00          | 109.00           | 593.00        | 1.00             |
| 331      | 1,152           | 7,947          | 6.90            | 22               | 99             | 39            | 1.91              | 360.50          | 29.86            | 206.00        | 1.75             |
| 332      | 408             | 2,284          | 5.60            | 3                | 6              | 3             | 0.68              | 829.00          | 148.00           | 829.00        | 1.00             |
| 333      | 1,791           | 8,244          | 4.60            | 28               | 165            | 33            | 1.54              | 299.20          | 54.17            | 249.33        | 1.20             |
| 335      | 598             | 3,968          | 6.64            | 8                | 99             | 19            | 1.38              | 480.00          | 31.00            | 205.71        | 2.33             |
| 339      | 683             | 3,968          | 5.81            | 3                | 33             | 8             | 0.40              | 1440.00         | 82.67            | 480.00        | 3.00             |
| 340      | 1,518           | 9,385          | 6.18            | 14               | 165            | 19            | 0.91              | 681.20          | 78.71            | 486.57        | 1.40             |
| 341      | 347             | 2,356          | 6.79            | 8                | 96             | 11            | 2.38              | 285.00          | 31.50            | 213.75        | 1.33             |
| 343      | 664             | 4,392          | 6.61            | 14               | 135            | 25            | 2.07              | 318.80          | 26.78            | 177.11        | 1.80             |
| 350      | 444             | 3,326          | 7.50            | 8                | 55             | 14            | 1.86              | 402.33          | 32.20            | 241.40        | 1.67             |
| 360      | 526             | 2,323          | 4.41            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 361      | 116             | 1,234          | 10.67           | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 362      | 130             | 576            | 4.45            | 6                | 14             | 6             | 4.26              | 104.50          | 23.50            | 104.50        | 1.00             |
| 370      | 248             | 1,281          | 5.17            | 6                | 14             | 8             | 2.22              | 232.50          | 30.00            | 155.00        | 1.50             |
| 380      | 2,039           | 11,212         | 5.50            | 30               | 430            | 50            | 1.49              | 369.91          | 41.11            | 226.06        | 1.64             |
| 390      | 204             | 882            | 4.32            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 391      | 722             | 4,056          | 5.62            | 6                | 94             | 17            | 0.76              | 736.00          | 43.67            | 245.33        | 3.00             |
| 392      | 1,083           | 7,175          | 6.63            | 30               | 306            | 52            | 2.80              | 236.73          | 20.68            | 137.05        | 1.73             |
| 393      | 1,110           | 4,775          | 4.30            | 14               | 80             | 17            | 1.24              | 346.60          | 67.17            | 288.83        | 1.20             |
| 399      | 33              | 113            | 3.42            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 400      | 1,582           | 6,329          | 4.00            | 3                | 6              | 8             | 0.17              | 2297.00         | 191.33           | 765.67        | 3.00             |
| 401      | 1,414           | 5,786          | 4.09            | 3                | 17             | 6             | 0.19              | 2100.00         | 256.50           | 1050.00       | 2.00             |
| 403      | 171             | 562            | 3.29            | 3                | 8              | 3             | 1.61              | 204.00          | 62.00            | 204.00        | 1.00             |
| 404      | 2,102           | 8,688          | 4.13            | 8                | 52             | 17            | 0.39              | 1051.00         | 127.17           | 525.50        | 2.00             |
| 405      | 1,306           | 4,188          | 3.21            | 6                | 14             | 6             | 0.42              | 760.00          | 237.00           | 760.00        | 1.00             |
| 406      | 758             | 3,334          | 4.40            | 3                | 6              | 6             | 0.36              | 1210.00         | 137.50           | 605.00        | 2.00             |
| 410      | 857             | 3,621          | 4.23            | 6                | 11             | 8             | 0.64              | 657.00          | 103.67           | 438.00        | 1.50             |
| 411      | 2,879           | 13,783         | 4.79            | 50               | 700            | 91            | 1.72              | 277.89          | 31.67            | 151.58        | 1.83             |
| 412      | 1,766           | 7,994          | 4.53            | 17               | 105            | 28            | 0.94              | 483.50          | 64.10            | 290.10        | 1.67             |
| 413      | 2,017           | 8,322          | 4.13            | 17               | 138            | 17            | 0.82              | 503.33          | 122.00           | 503.33        | 1.00             |
| 415      | 52              | 187            | 3.58            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 416      | 948             | 4,505          | 4.75            | 14               | 105            | 19            | 1.45              | 327.00          | 49.14            | 233.57        | 1.40             |
| 417      | 686             | 2,979          | 4.34            | 17               | 132            | 30            | 2.41              | 180.17          | 22.64            | 98.27         | 1.83             |
| 418      | 959             | 4,337          | 4.52            | 6                | 14             | 6             | 0.57              | 787.00          | 174.00           | 787.00        | 1.00             |
| 419      | 650             | 2,488          | 3.83            | 6                | 11             | 6             | 0.85              | 451.50          | 118.00           | 451.50        | 1.00             |
| 420      | 149             | 716            | 4.81            | 3                | 11             | 3             | 1.85              | 260.00          | 54.00            | 260.00        | 1.00             |
| 421      | 485             | 1,725          | 3.56            | 6                | 30             | 8             | 1.14              | 313.00          | 58.67            | 208.67        | 1.50             |
| 422      | 314             | 1,287          | 4.10            | 8                | 28             | 14            | 2.63              | 155.67          | 22.80            | 93.40         | 1.67             |
| 423      | 281             | 1,022          | 3.64            | 8                | 39             | 11            | 2.94              | 123.67          | 25.50            | 92.75         | 1.33             |
| 424      | 168             | 882            | 5.25            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 425      | 212             | 818            | 3.86            | 14               | 237            | 36            | 6.49              | 59.40           | 5.92             | 22.85         | 2.60             |
| 426      | 986             | 3,615          | 3.66            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 432      | 1,279           | 5,977          | 4.67            | 14               | 66             | 33            | 1.08              | 433.80          | 38.67            | 180.75        | 2.40             |
| 441      | 504             | 2,742          | 5.44            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 442      | 270             | 1,350          | 5.00            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 444      | 493             | 2,105          | 4.27            | 6                | 80             | 6             | 1.12              | 382.00          | 89.50            | 382.00        | 1.00             |
| 445      | 1,761           | 6,340          | 3.60            | 25               | 212            | 36            | 1.41              | 255.67          | 49.15            | 177.00        | 1.44             |
| 446      | 526             | 2,496          | 4.74            | 14               | 146            | 19            | 2.62              | 181.20          | 27.29            | 129.43        | 1.40             |
| 447      | 2,411           | 10,132         | 4.20            | 8                | 135            | 8             | 0.34              | 1225.67         | 291.67           | 1225.67       | 1.00             |
| 448      | 661             | 3,571          | 5.40            | 6                | 36             | 11            | 0.83              | 648.00          | 60.00            | 324.00        | 2.00             |
| 449      | 358             | 1,628          | 4.55            | 8                | 74             | 8             | 2.31              | 197.00          | 43.33            | 197.00        | 1.00             |
| 450      | 430             | 1,507          | 3.51            | 3                | 8              | 3             | 0.64              | 547.00          | 156.00           | 547.00        | 1.00             |
| 452      | 218             | 964            | 4.43            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 454      | 386             | 2,047          | 5.31            | 17               | 157            | 28            | 4.29              | 123.83          | 14.00            | 74.30         | 1.67             |
| 455      | 141             | 598            | 4.25            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 471      | 634             | 2,350          | 3.71            | 6                | 22             | 6             | 0.87              | 426.50          | 115.00           | 426.50        | 1.00             |
| 499      | 124             | 515            | 4.16            | 3                | 14             | 3             | 2.22              | 187.00          | 45.00            | 187.00        | 1.00             |

TABLE 2: DEER HUNTING EFFORT AND LION OBSERVATIONS

Thu Oct 31

page 3

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Deer Hunting Effort and Lion Observations  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Days | Days/<br>Hunter | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Days/<br>Observ | Hunters<br>/Lion | Days<br>/Lion | Lions/<br>Observ |
|----------|-----------------|----------------|-----------------|------------------|----------------|---------------|-------------------|-----------------|------------------|---------------|------------------|
| 500      | 1,686           | 6,103          | 3.62            | 3                | 11             | 3             | 0.16              | 2215.00         | 612.00           | 2215.00       | 1.00             |
| 502      | 1,670           | 7,261          | 4.35            | 17               | 96             | 28            | 0.99              | 439.17          | 60.60            | 263.50        | 1.67             |
| 510      | 526             | 2,764          | 5.25            | 30               | 251            | 36            | 5.76              | 91.18           | 14.69            | 77.15         | 1.18             |
| 511      | 681             | 2,237          | 3.29            | 8                | 110            | 8             | 1.21              | 270.67          | 82.33            | 270.67        | 1.00             |
| 520      | 1,516           | 6,577          | 4.34            | 22               | 171            | 28            | 1.45              | 298.38          | 55.00            | 238.70        | 1.25             |
| 530      | 1,518           | 6,205          | 4.09            | 25               | 110            | 28            | 1.63              | 250.22          | 55.10            | 225.20        | 1.11             |
| 540      | 609             | 2,560          | 4.20            | 11               | 91             | 19            | 1.81              | 232.25          | 31.57            | 132.71        | 1.75             |
| 560      | 1,174           | 4,530          | 3.86            | 11               | 41             | 11            | 0.94              | 411.00          | 106.50           | 411.00        | 1.00             |
| 570      | 1,662           | 6,150          | 3.70            | 28               | 292            | 44            | 1.66              | 223.20          | 37.69            | 139.50        | 1.60             |
| 575      | 2,364           | 9,933          | 4.20            | 33               | 146            | 44            | 1.40              | 300.42          | 53.63            | 225.31        | 1.33             |
| 580      | 1,527           | 5,489          | 3.60            | 22               | 99             | 47            | 1.44              | 249.00          | 32.59            | 117.18        | 2.13             |
| 590      | 2,907           | 12,378         | 4.26            | 41               | 223            | 44            | 1.42              | 299.47          | 65.94            | 280.75        | 1.07             |
| 599      | 74              | 320            | 4.30            | 3                | 11             | 3             | 3.70              | 116.00          | 27.00            | 116.00        | 1.00             |
| 600      | 931             | 4,017          | 4.31            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 610      | 559             | 2,215          | 3.96            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 611      | 513             | 1,838          | 3.59            | 6                | 17             | 8             | 1.08              | 333.50          | 62.00            | 222.33        | 1.50             |
| 620      | 592             | 2,271          | 3.83            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 621      | 270             | 1,444          | 5.35            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 622      | 240             | 1,110          | 4.63            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 623      | 132             | 612            | 4.63            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 630      | 975             | 5,307          | 5.44            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 631      | 157             | 703            | 4.47            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 632      | 160             | 554            | 3.47            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 640      | 887             | 4,403          | 4.96            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 641      | 187             | 1,022          | 5.46            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 650      | 810             | 3,359          | 4.15            | 3                | 28             | 3             | 0.34              | 1219.00         | 294.00           | 1219.00       | 1.00             |
| 651      | 733             | 3,982          | 5.43            | 3                | 8              | 3             | 0.38              | 1445.00         | 266.00           | 1445.00       | 1.00             |
| 652      | 171             | 590            | 3.45            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 670      | 747             | 3,083          | 4.13            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 680      | 466             | 1,830          | 3.93            | 3                | 19             | 3             | 0.59              | 664.00          | 169.00           | 664.00        | 1.00             |
| 690      | 1,929           | 8,457          | 4.38            | 11               | 110            | 25            | 0.57              | 767.25          | 77.78            | 341.00        | 2.25             |
| 699      | 8               | 25             | 3.00            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 700      | 2,408           | 11,267         | 4.68            | 11               | 77             | 11            | 0.46              | 1022.25         | 218.50           | 1022.25       | 1.00             |
| 701      | 2,695           | 11,780         | 4.37            | 19               | 176            | 28            | 0.72              | 610.71          | 97.80            | 427.50        | 1.43             |
| 702      | 1,623           | 7,181          | 4.42            | 11               | 33             | 19            | 0.68              | 651.50          | 84.14            | 372.29        | 1.75             |
| 703      | 2,659           | 14,910         | 5.61            | 11               | 110            | 14            | 0.41              | 1352.75         | 193.00           | 1082.20       | 1.25             |
| 704      | 2,855           | 12,273         | 4.30            | 22               | 141            | 22            | 0.77              | 556.75          | 129.50           | 556.75        | 1.00             |
| 705      | 2,097           | 9,159          | 4.37            | 14               | 116            | 17            | 0.66              | 664.80          | 126.83           | 554.00        | 1.20             |
| 799      | 22              | 96             | 4.38            | 0                | 0              | 0             | 0.00              | -9.90           | -9.90            | -9.90         | -9.90            |
| 999      | 118             | 716            | 6.05            | 3                | 14             | 11            | 2.33              | 260.00          | 10.75            | 65.00         | 4.00             |



TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
Statewide and Regional

| Location | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPREC | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPREC | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPREC |
|----------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| State    | 117,526         | 116,944            | 118,109           | 0.50              | 2,273            | 2,192            | 2,354            | 3.56              | 3,455         | 3,356           | 3,555           | 2.89             |
| Region 1 | 20,641          | 20,397             | 20,885            | 1.18              | 620              | 578              | 662              | 6.82              | 937           | 885             | 989             | 5.55             |
| Region 2 | 19,974          | 19,734             | 20,215            | 1.20              | 620              | 578              | 662              | 6.82              | 937           | 885             | 989             | 5.55             |
| Region 3 | 23,821          | 23,559             | 24,083            | 1.10              | 386              | 352              | 419              | 8.65              | 598           | 556             | 639             | 6.95             |
| Region 4 | 24,926          | 24,658             | 25,194            | 1.08              | 295              | 266              | 324              | 9.89              | 479           | 442             | 517             | 7.76             |
| Region 5 | 15,910          | 15,696             | 16,124            | 1.35              | 254              | 226              | 281              | 10.67             | 342           | 310             | 373             | 9.19             |
| Region 6 | 9,418           | 9,253              | 9,583             | 1.75              | 25               | 16               | 33               | 34.11             | 41            | 30              | 52              | 26.42            |
| Region 7 | 13,348          | 13,151             | 13,544            | 1.47              | 85               | 70               | 101              | 18.38             | 110           | 92              | 128             | 16.18            |
| Region U | 118             | 100                | 137               | 15.61             | 3                | 0                | 6                | 102.34            | 11            | 5               | 17              | 51.17            |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Lion Management Area

| Location | Lion Mgmt Area Name    | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPrec | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPrec | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPrec |
|----------|------------------------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| M1A      | CABINET-YAAK           | 3,657           | 3,554              | 3,759             | 2.81              | 157              | 136              | 178              | 13.56             | 270           | 242             | 298             | 10.34            |
| M1B      | CLARK FORK             | 2,789           | 2,699              | 2,878             | 3.22              | 36               | 26               | 46               | 28.38             | 36            | 26              | 46              | 28.38            |
| M1C      | SALISH                 | 11,876          | 11,691             | 12,061            | 1.56              | 339              | 308              | 370              | 9.23              | 490           | 453             | 528             | 7.67             |
| M1D      | BOB MARSHALL-MISSIONS  | 3,386           | 3,288              | 3,485             | 2.92              | 52               | 40               | 65               | 23.48             | 88            | 72              | 104             | 18.09            |
| M1E      | WHITEFISH              | 1,590           | 1,522              | 1,658             | 4.26              | 39               | 28               | 49               | 27.35             | 50            | 38              | 62              | 24.12            |
| M1F      | URBAN                  | 805             | 756                | 853               | 5.99              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| M1U      | REGION 1 UNKNOWN       | 61              | 47                 | 74                | 21.82             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| M2A      | LOWER CLARK FORK       | 4,445           | 4,331              | 4,558             | 2.55              | 141              | 120              | 161              | 14.33             | 226           | 200             | 251             | 11.30            |
| M2B      | BITTERROOT             | 7,594           | 7,446              | 7,742             | 1.95              | 157              | 136              | 178              | 13.56             | 220           | 195             | 246             | 11.44            |
| M2C      | ROCK CR-DEERLODGE      | 3,356           | 3,258              | 3,455             | 2.93              | 94               | 77               | 110              | 17.55             | 149           | 128             | 170             | 13.93            |
| M2D      | BLACKFOOT              | 7,015           | 6,873              | 7,158             | 2.03              | 231              | 206              | 257              | 11.17             | 336           | 305             | 367             | 9.27             |
| M2U      | REGION 2 UNKNOWN       | 72              | 57                 | 86                | 20.07             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| M3A      | BIGHOLE                | 3,893           | 3,787              | 3,999             | 2.72              | 63               | 50               | 77               | 21.34             | 91            | 75              | 107             | 17.82            |
| M3B      | GRAVELLYS-PIONEERS     | 7,159           | 7,015              | 7,302             | 2.01              | 110              | 92               | 128              | 16.18             | 163           | 141             | 184             | 13.32            |
| M3C      | YELLOWSTONE            | 4,717           | 4,601              | 4,834             | 2.47              | 50               | 38               | 62               | 24.12             | 61            | 47              | 74              | 21.82            |
| M3D      | BELTS-BRIDGERS-ELKHORN | 10,589          | 10,414             | 10,764            | 1.65              | 168              | 146              | 190              | 13.10             | 284           | 255             | 312             | 10.08            |
| M3U      | REGION 3 UNKNOWN       | 33              | 23                 | 43                | 29.54             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| M4A      | EAST FRONT             | 2,929           | 2,837              | 3,021             | 3.14              | 44               | 33               | 55               | 25.59             | 77            | 62              | 92              | 19.34            |
| M4B      | MOUNTAIN-FOOTHILLS     | 12,309          | 12,120             | 12,497            | 1.53              | 185              | 162              | 208              | 12.50             | 298           | 268             | 327             | 9.85             |
| M4C      | PRAIRE-AGRICULTURE     | 12,309          | 12,120             | 12,497            | 1.53              | 66               | 52               | 80               | 20.89             | 102           | 85              | 119             | 16.82            |
| M4U      | REGION 4 UNKNOWN       | 124             | 105                | 143               | 15.26             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| M5A      | BEARTOOTH FACE         | 2,670           | 2,582              | 2,758             | 3.29              | 33               | 23               | 43               | 29.54             | 39            | 28              | 49              | 27.35            |
| M5B      | MOUNTAIN FOOTHILLS     | 3,229           | 3,133              | 3,326             | 2.99              | 72               | 57               | 86               | 20.07             | 110           | 92              | 128             | 16.18            |
| M5C      | PRAIRE-AGRICULTURE     | 10,997          | 10,819             | 11,175            | 1.62              | 146              | 126              | 167              | 14.06             | 190           | 167             | 214             | 12.32            |
| M5U      | REGION 5 UNKNOWN       | 74              | 60                 | 89                | 19.70             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| M6A      | REGION 6 DISTRICTS     | 9,410           | 9,245              | 9,575             | 1.75              | 25               | 16               | 33               | 34.11             | 41            | 30              | 52              | 26.42            |
| M6U      | REGION 6 UNKNOWN       | 8               | 3                  | 13                | 59.09             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| M7A      | REGION 7 DISTRICTS     | 13,325          | 13,129             | 13,522            | 1.47              | 85               | 70               | 101              | 18.38             | 110           | 92              | 128             | 16.18            |
| M7U      | REGION 7 UNKNOWN       | 22              | 14                 | 30                | 36.18             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| M9U      | REGION UNKNOWN         | 118             | 100                | 137               | 15.61             | 3                | 0                | 6                | 102.34            | 11            | 5               | 17              | 51.17            |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit       | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPREC | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPREC | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPREC |
|----------|----------------------------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| R100     | HD:100                     | 2,568           | 2,482              | 2,654             | 3.35              | 116              | 97               | 134              | 15.79             | 190           | 167             | 214             | 12.32            |
| R101     | HD:101                     | 2,375           | 2,292              | 2,458             | 3.49              | 74               | 60               | 89               | 19.70             | 124           | 105             | 143             | 15.26            |
| R102     | HD:102                     | 3,279           | 3,182              | 3,376             | 2.97              | 80               | 65               | 95               | 19.00             | 105           | 87              | 122             | 16.60            |
| R103     | HD:103                     | 3,469           | 3,369              | 3,569             | 2.88              | 77               | 62               | 92               | 19.34             | 116           | 97              | 134             | 15.79            |
| R104     | HD:104                     | 1,678           | 1,608              | 1,748             | 4.15              | 47               | 35               | 58               | 24.82             | 80            | 65              | 95              | 19.00            |
| R110     | HD:110                     | 1,590           | 1,522              | 1,658             | 4.26              | 39               | 28               | 49               | 27.35             | 50            | 38              | 62              | 24.12            |
| R120     | HD:120                     | 2,408           | 2,325              | 2,492             | 3.46              | 58               | 45               | 71               | 22.33             | 77            | 62              | 92              | 19.34            |
| R121     | HD:121                     | 2,105           | 2,027              | 2,183             | 3.70              | 30               | 21               | 40               | 30.86             | 30            | 21              | 40              | 30.86            |
| R122     | HD:122                     | 2,039           | 1,962              | 2,116             | 3.76              | 52               | 40               | 65               | 23.48             | 69            | 55              | 83              | 20.47            |
| R123     | HD:123                     | 416             | 381                | 451               | 8.33              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| R124     | HD:124                     | 457             | 421                | 494               | 7.94              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| R130     | HD:130                     | 1,786           | 1,714              | 1,857             | 4.02              | 30               | 21               | 40               | 30.86             | 58            | 45              | 71              | 22.33            |
| R132     | HD:132,170                 | 1,887           | 1,814              | 1,961             | 3.91              | 11               | 5                | 17               | 51.17             | 17            | 10              | 23              | 41.78            |
| R140     | HD:140                     | 430             | 395                | 465               | 8.19              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| R141     | HD:141                     | 146             | 126                | 167               | 14.06             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| R150     | HD:150,151                 | 88              | 72                 | 104               | 18.09             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| R199     | HD:R1 UNKN                 | 61              | 47                 | 74                | 21.82             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
|          |                            |                 |                    |                   |                   |                  |                  |                  |                   |               |                 |                 |                  |
| R200     | HD:200,201                 | 2,342           | 2,260              | 2,424             | 3.51              | 55               | 42               | 68               | 22.88             | 94            | 77              | 110             | 17.55            |
| R202     | HD:202,203                 | 2,651           | 2,563              | 2,738             | 3.30              | 88               | 72               | 104              | 18.09             | 132           | 113             | 152             | 14.77            |
| R204     | HD:204,260,261             | 3,905           | 3,798              | 4,011             | 2.72              | 61               | 47               | 74               | 21.82             | 88            | 72              | 104             | 18.09            |
| R210     | HD:210,211,216             | 1,290           | 1,229              | 1,351             | 4.73              | 50               | 38               | 62               | 24.12             | 85            | 70              | 101             | 18.38            |
| R212     | HD:212,215                 | 1,728           | 1,657              | 1,798             | 4.09              | 41               | 30               | 52               | 26.42             | 58            | 45              | 71              | 22.33            |
| R213     | HD:213,214                 | 579             | 538                | 620               | 7.06              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| R240     | HD:240                     | 2,053           | 1,976              | 2,130             | 3.75              | 33               | 23               | 43               | 29.54             | 47            | 35              | 58              | 24.82            |
| R250     | HD:250                     | 1,116           | 1,059              | 1,173             | 5.09              | 41               | 30               | 52               | 26.42             | 61            | 47              | 74              | 21.82            |
| R270     | HD:270                     | 1,874           | 1,800              | 1,947             | 3.92              | 22               | 14               | 30               | 36.18             | 25            | 16              | 33              | 34.11            |
| R280     | HD:280,281,284,293         | 2,028           | 1,952              | 2,105             | 3.77              | 74               | 60               | 89               | 19.70             | 102           | 85              | 119             | 16.82            |
| R282     | HD:282                     | 182             | 159                | 205               | 12.60             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| R283     | HD:283,285                 | 2,979           | 2,886              | 3,071             | 3.11              | 85               | 70               | 101              | 18.38             | 124           | 105             | 143             | 15.26            |
| R290     | HD:290,291,292             | 2,491           | 2,406              | 2,576             | 3.40              | 69               | 55               | 83               | 20.47             | 105           | 87              | 122             | 16.60            |
| R299     | HD:R2 UNKN                 | 72              | 57                 | 86                | 20.07             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
|          |                            |                 |                    |                   |                   |                  |                  |                  |                   |               |                 |                 |                  |
| R300     | HD:300,302,328,329         | 1,113           | 1,057              | 1,170             | 5.09              | 22               | 14               | 30               | 36.18             | 25            | 16              | 33              | 34.11            |
| R301     | HD:301                     | 995             | 941                | 1,048             | 5.39              | 8                | 3                | 13               | 59.09             | 17            | 10              | 23              | 41.78            |
| R310     | HD:310,311,360,361,362     | 2,576           | 2,490              | 2,663             | 3.35              | 19               | 12               | 27               | 38.68             | 22            | 14              | 30              | 36.18            |
| R312     | HD:312,393                 | 2,631           | 2,544              | 2,719             | 3.31              | 41               | 30               | 52               | 26.42             | 52            | 40              | 65              | 23.48            |
| R313     | HD:313,316                 | 317             | 287                | 347               | 9.54              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| R314     | HD:314                     | 609             | 567                | 651               | 6.88              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| R315     | HD:315                     | 1,722           | 1,652              | 1,793             | 4.09              | 14               | 7                | 20               | 45.77             | 25            | 16              | 33              | 34.11            |
| R317     | HD:317                     | 595             | 554                | 637               | 6.96              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| R318     | HD:318,350                 | 769             | 722                | 816               | 6.13              | 17               | 10               | 23               | 41.78             | 28            | 19              | 36              | 32.36            |
| R319     | HD:319,341                 | 942             | 890                | 995               | 5.53              | 19               | 12               | 27               | 38.68             | 22            | 14              | 30              | 36.18            |
| R320     | HD:320,333                 | 2,604           | 2,517              | 2,691             | 3.33              | 47               | 35               | 58               | 24.82             | 69            | 55              | 83              | 20.47            |
| R321     | HD:321,331,332             | 1,794           | 1,722              | 1,866             | 4.01              | 30               | 21               | 40               | 30.86             | 50            | 38              | 62              | 24.12            |
| R322     | HD:322,326,330             | 2,494           | 2,409              | 2,579             | 3.40              | 25               | 16               | 33               | 34.11             | 39            | 28              | 49              | 27.35            |
| R323     | HD:323,324,325,327         | 1,521           | 1,455              | 1,587             | 4.36              | 17               | 10               | 23               | 41.78             | 30            | 21              | 40              | 30.86            |
| R335     | HD:335,339,343             | 1,893           | 1,819              | 1,967             | 3.90              | 25               | 16               | 33               | 34.11             | 52            | 40              | 65              | 23.48            |
| R340     | HD:340                     | 1,518           | 1,452              | 1,584             | 4.36              | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| R370     | HD:370,380                 | 2,262           | 2,181              | 2,343             | 3.57              | 36               | 26               | 46               | 28.38             | 58            | 45              | 71              | 22.33            |
| R390     | HD:390,391,392             | 1,937           | 1,862              | 2,012             | 3.86              | 36               | 26               | 46               | 28.38             | 69            | 55              | 83              | 20.47            |
| R399     | HD:R3 UNKN                 | 33              | 23                 | 43                | 29.54             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
|          |                            |                 |                    |                   |                   |                  |                  |                  |                   |               |                 |                 |                  |
| R400     | HD:400,401,403,406,415,441 | 4,122           | 4,013              | 4,231             | 2.65              | 11               | 5                | 17               | 51.17             | 22            | 14              | 30              | 36.18            |
| R404     | HD:404,421,444,450         | 3,392           | 3,293              | 3,491             | 2.92              | 22               | 14               | 30               | 36.18             | 33            | 23              | 43              | 29.54            |
| R405     | HD:405,447,471             | 4,114           | 4,005              | 4,223             | 2.65              | 19               | 12               | 27               | 38.68             | 19            | 12              | 27              | 38.68            |
| R410     | HD:410,417,419,426         | 3,006           | 2,913              | 3,099             | 3.10              | 28               | 19               | 36               | 32.36             | 44            | 33              | 55              | 25.59            |
| R411     | HD:411,412                 | 4,348           | 4,236              | 4,460             | 2.58              | 66               | 52               | 80               | 20.89             | 118           | 100             | 137             | 15.61            |
| R413     | HD:413,432                 | 3,144           | 3,049              | 3,239             | 3.03              | 30               | 21               | 40               | 30.86             | 50            | 38              | 62              | 24.12            |
| R416     | HD:416,446,449,452,454     | 2,196           | 2,116              | 2,276             | 3.63              | 50               | 38               | 62               | 24.12             | 74            | 60              | 89              | 19.70            |
| R418     | HD:418,420,448             | 1,637           | 1,568              | 1,705             | 4.20              | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| R422     | HD:422,423,424,425,442     | 1,168           | 1,110              | 1,226             | 4.97              | 30               | 21               | 40               | 30.86             | 61            | 47              | 74              | 21.82            |
| R445     | HD:445,455                 | 1,887           | 1,814              | 1,961             | 3.91              | 25               | 16               | 33               | 34.11             | 36            | 26              | 46              | 28.38            |
| R499     | HD:R4 UNKN                 | 124             | 105                | 143               | 15.26             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit   | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPrec | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPrec | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPrec |
|----------|------------------------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| R530     | HD:530,590             | 4,296           | 4,184              | 4,407             | 2.59              | 66               | 52               | 80               | 20.89             | 72            | 57              | 86              | 20.07            |
| R540     | HD:540                 | 609             | 567                | 651               | 6.88              | 11               | 5                | 17               | 51.17             | 19            | 12              | 27              | 38.68            |
| R500     | HD:500,570             | 3,293           | 3,195              | 3,390             | 2.96              | 30               | 21               | 40               | 30.86             | 47            | 35              | 58              | 24.82            |
| R502     | HD:502,575             | 3,946           | 3,839              | 4,053             | 2.70              | 50               | 38               | 62               | 24.12             | 72            | 57              | 86              | 20.07            |
| R510     | HD:510                 | 526             | 487                | 565               | 7.41              | 30               | 21               | 40               | 30.86             | 36            | 26              | 46              | 28.38            |
| R511     | HD:511                 | 681             | 636                | 725               | 6.51              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| R520     | HD:520                 | 1,516           | 1,449              | 1,582             | 4.36              | 22               | 14               | 30               | 36.18             | 28            | 19              | 36              | 32.36            |
| R560     | HD:560                 | 1,174           | 1,116              | 1,232             | 4.96              | 11               | 5                | 17               | 51.17             | 11            | 5               | 17              | 51.17            |
| R580     | HD:580                 | 1,527           | 1,460              | 1,593             | 4.35              | 22               | 14               | 30               | 36.18             | 47            | 35              | 58              | 24.82            |
| R599     | HD:R5 UNKN             | 74              | 60                 | 89                | 19.70             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| R600     | HD:600'S (NOT 680,690) | 7,255           | 7,110              | 7,400             | 1.99              | 11               | 5                | 17               | 51.17             | 14            | 7               | 20              | 45.77            |
| R680     | HD:680,690             | 2,348           | 2,265              | 2,430             | 3.51              | 14               | 7                | 20               | 45.77             | 28            | 19              | 36              | 32.36            |
| R699     | HD:R6 UNKN             | 8               | 3                  | 13                | 59.09             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| R700     | HD:700'S               | 13,325          | 13,129             | 13,522            | 1.47              | 85               | 70               | 101              | 18.38             | 110           | 92              | 128             | 16.18            |
| R799     | HD:R7 UNKN             | 22              | 14                 | 30                | 36.18             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| R999     | HD:REGION UNKN         | 118             | 100                | 137               | 15.61             | 3                | 0                | 6                | 102.34            | 11            | 5               | 17              | 51.17            |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPrec | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPrec | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPrec |
|----------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| 100      | 2,568           | 2,482              | 2,654             | 3.35              | 116              | 97               | 134              | 15.79             | 190           | 167             | 214             | 12.32            |
| 101      | 2,375           | 2,292              | 2,458             | 3.49              | 74               | 60               | 89               | 19.70             | 124           | 105             | 143             | 15.26            |
| 102      | 3,279           | 3,182              | 3,376             | 2.97              | 80               | 65               | 95               | 19.00             | 105           | 87              | 122             | 16.60            |
| 103      | 3,469           | 3,369              | 3,569             | 2.88              | 77               | 62               | 92               | 19.34             | 116           | 97              | 134             | 15.79            |
| 104      | 1,678           | 1,608              | 1,748             | 4.15              | 47               | 35               | 58               | 24.82             | 80            | 65              | 95              | 19.00            |
| 110      | 1,590           | 1,522              | 1,658             | 4.26              | 39               | 28               | 49               | 27.35             | 50            | 38              | 62              | 24.12            |
| 120      | 2,408           | 2,325              | 2,492             | 3.46              | 58               | 45               | 71               | 22.33             | 77            | 62              | 92              | 19.34            |
| 121      | 2,105           | 2,027              | 2,183             | 3.70              | 30               | 21               | 40               | 30.86             | 30            | 21              | 40              | 30.86            |
| 122      | 2,039           | 1,962              | 2,116             | 3.76              | 52               | 40               | 65               | 23.48             | 69            | 55              | 83              | 20.47            |
| 123      | 416             | 381                | 451               | 8.33              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 124      | 457             | 421                | 494               | 7.94              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 130      | 1,786           | 1,714              | 1,857             | 4.02              | 30               | 21               | 40               | 30.86             | 58            | 45              | 71              | 22.33            |
| 132      | 1,157           | 1,100              | 1,215             | 4.99              | 11               | 5                | 17               | 51.17             | 17            | 10              | 23              | 41.78            |
| 140      | 430             | 395                | 465               | 8.19              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| 141      | 146             | 126                | 167               | 14.06             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 150      | 63              | 50                 | 77                | 21.34             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 151      | 25              | 16                 | 33                | 34.11             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 170      | 805             | 756                | 853               | 5.99              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 199      | 61              | 47                 | 74                | 21.82             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 200      | 700             | 655                | 745               | 6.42              | 11               | 5                | 17               | 51.17             | 14            | 7               | 20              | 45.77            |
| 201      | 1,755           | 1,684              | 1,826             | 4.05              | 44               | 33               | 55               | 25.59             | 80            | 65              | 95              | 19.00            |
| 202      | 1,516           | 1,449              | 1,582             | 4.36              | 30               | 21               | 40               | 30.86             | 33            | 23              | 43              | 29.54            |
| 203      | 1,237           | 1,177              | 1,297             | 4.83              | 61               | 47               | 74               | 21.82             | 99            | 82              | 116             | 17.06            |
| 204      | 1,799           | 1,727              | 1,871             | 4.00              | 36               | 26               | 46               | 28.38             | 44            | 33              | 55              | 25.59            |
| 210      | 907             | 855                | 958               | 5.64              | 30               | 21               | 40               | 30.86             | 55            | 42              | 68              | 22.88            |
| 211      | 226             | 200                | 251               | 11.30             | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| 212      | 1,091           | 1,035              | 1,147             | 5.14              | 22               | 14               | 30               | 36.18             | 33            | 23              | 43              | 29.54            |
| 213      | 344             | 313                | 376               | 9.15              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 214      | 281             | 253                | 310               | 10.13             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 215      | 738             | 692                | 785               | 6.25              | 19               | 12               | 27               | 38.68             | 25            | 16              | 33              | 34.11            |
| 216      | 226             | 200                | 251               | 11.30             | 6                | 2                | 9                | 72.37             | 11            | 5               | 17              | 51.17            |
| 240      | 2,053           | 1,976              | 2,130             | 3.75              | 33               | 23               | 43               | 29.54             | 47            | 35              | 58              | 24.82            |
| 250      | 1,116           | 1,059              | 1,173             | 5.09              | 41               | 30               | 52               | 26.42             | 61            | 47              | 74              | 21.82            |
| 260      | 1,576           | 1,509              | 1,644             | 4.28              | 11               | 5                | 17               | 51.17             | 11            | 5               | 17              | 51.17            |
| 261      | 783             | 735                | 830               | 6.07              | 14               | 7                | 20               | 45.77             | 33            | 23              | 43              | 29.54            |
| 270      | 1,874           | 1,800              | 1,947             | 3.92              | 22               | 14               | 30               | 36.18             | 25            | 16              | 33              | 34.11            |
| 280      | 141             | 120                | 161               | 14.33             | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 281      | 1,011           | 957                | 1,065             | 5.34              | 44               | 33               | 55               | 25.59             | 55            | 42              | 68              | 22.88            |
| 282      | 182             | 159                | 205               | 12.60             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 283      | 1,317           | 1,255              | 1,379             | 4.68              | 28               | 19               | 36               | 32.36             | 36            | 26              | 46              | 28.38            |
| 284      | 165             | 143                | 187               | 13.21             | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 285      | 1,821           | 1,749              | 1,894             | 3.98              | 58               | 45               | 71               | 22.33             | 88            | 72              | 104             | 18.09            |
| 290      | 179             | 156                | 202               | 12.69             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 291      | 526             | 487                | 565               | 7.41              | 11               | 5                | 17               | 51.17             | 14            | 7               | 20              | 45.77            |
| 292      | 1,865           | 1,792              | 1,939             | 3.93              | 58               | 45               | 71               | 22.33             | 91            | 75              | 107             | 17.82            |
| 293      | 904             | 853                | 955               | 5.65              | 19               | 12               | 27               | 38.68             | 30            | 21              | 40              | 30.86            |
| 299      | 72              | 57                 | 86                | 20.07             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 300      | 234             | 208                | 260               | 11.10             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 301      | 995             | 941                | 1,048             | 5.39              | 8                | 3                | 13               | 59.09             | 17            | 10              | 23              | 41.78            |
| 302      | 295             | 266                | 324               | 9.89              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 310      | 209             | 185                | 234               | 11.74             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 311      | 1,750           | 1,679              | 1,821             | 4.06              | 11               | 5                | 17               | 51.17             | 14            | 7               | 20              | 45.77            |
| 312      | 1,637           | 1,568              | 1,705             | 4.20              | 28               | 19               | 36               | 32.36             | 36            | 26              | 46              | 28.38            |
| 313      | 284             | 255                | 312               | 10.08             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 314      | 609             | 567                | 651               | 6.88              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| 315      | 1,722           | 1,652              | 1,793             | 4.09              | 14               | 7                | 20               | 45.77             | 25            | 16              | 33              | 34.11            |
| 316      | 33              | 23                 | 43                | 29.54             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 317      | 595             | 554                | 637               | 6.96              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 318      | 350             | 318                | 382               | 9.08              | 8                | 3                | 13               | 59.09             | 14            | 7               | 20              | 45.77            |
| 319      | 637             | 594                | 679               | 6.73              | 11               | 5                | 17               | 51.17             | 11            | 5               | 17              | 51.17            |
| 320      | 857             | 807                | 907               | 5.80              | 19               | 12               | 27               | 38.68             | 36            | 26              | 46              | 28.38            |
| 321      | 350             | 318                | 382               | 9.08              | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 322      | 1,196           | 1,137              | 1,255             | 4.91              | 14               | 7                | 20               | 45.77             | 25            | 16              | 33              | 34.11            |
| 323      | 220             | 195                | 246               | 11.44             | 8                | 3                | 13               | 59.09             | 22            | 14              | 30              | 36.18            |
| 324      | 455             | 418                | 491               | 7.97              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 325      | 727             | 682                | 773               | 6.30              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPrec | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPrec | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPrec |
|----------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| 326      | 829             | 780                | 878               | 5.90              | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 327      | 196             | 172                | 219               | 12.15             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 328      | 198             | 174                | 222               | 12.06             | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 329      | 482             | 445                | 520               | 7.74              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 330      | 601             | 559                | 642               | 6.93              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 331      | 1,152           | 1,094              | 1,209             | 5.01              | 22               | 14               | 30               | 36.18             | 39            | 28              | 49              | 27.35            |
| 332      | 408             | 374                | 442               | 8.41              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 333      | 1,791           | 1,719              | 1,863             | 4.01              | 28               | 19               | 36               | 32.36             | 33            | 23              | 43              | 29.54            |
| 335      | 598             | 556                | 639               | 6.95              | 8                | 3                | 13               | 59.09             | 19            | 12              | 27              | 38.68            |
| 339      | 683             | 639                | 728               | 6.50              | 3                | 0                | 6                | 102.34            | 8             | 3               | 13              | 59.09            |
| 340      | 1,518           | 1,452              | 1,584             | 4.36              | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| 341      | 347             | 316                | 379               | 9.12              | 8                | 3                | 13               | 59.09             | 11            | 5               | 17              | 51.17            |
| 343      | 664             | 620                | 708               | 6.59              | 14               | 7                | 20               | 45.77             | 25            | 16              | 33              | 34.11            |
| 350      | 444             | 408                | 479               | 8.07              | 8                | 3                | 13               | 59.09             | 14            | 7               | 20              | 45.77            |
| 360      | 526             | 487                | 565               | 7.41              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 361      | 116             | 97                 | 134               | 15.79             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 362      | 130             | 110                | 149               | 14.93             | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 370      | 248             | 221                | 275               | 10.79             | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 380      | 2,039           | 1,962              | 2,116             | 3.76              | 30               | 21               | 40               | 30.86             | 50            | 38              | 62              | 24.12            |
| 390      | 204             | 180                | 228               | 11.90             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 391      | 722             | 676                | 768               | 6.32              | 6                | 2                | 9                | 72.37             | 17            | 10              | 23              | 41.78            |
| 392      | 1,083           | 1,027              | 1,139             | 5.16              | 30               | 21               | 40               | 30.86             | 52            | 40              | 65              | 23.48            |
| 393      | 1,110           | 1,054              | 1,167             | 5.10              | 14               | 7                | 20               | 45.77             | 17            | 10              | 23              | 41.78            |
| 399      | 33              | 23                 | 43                | 29.54             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 400      | 1,582           | 1,514              | 1,649             | 4.27              | 3                | 0                | 6                | 102.34            | 8             | 3               | 13              | 59.09            |
| 401      | 1,414           | 1,350              | 1,477             | 4.52              | 3                | 0                | 6                | 102.34            | 6             | 2               | 9               | 72.37            |
| 403      | 171             | 149                | 193               | 13.00             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 404      | 2,102           | 2,025              | 2,180             | 3.70              | 8                | 3                | 13               | 59.09             | 17            | 10              | 23              | 41.78            |
| 405      | 1,306           | 1,245              | 1,367             | 4.70              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 406      | 758             | 711                | 805               | 6.17              | 3                | 0                | 6                | 102.34            | 6             | 2               | 9               | 72.37            |
| 410      | 857             | 807                | 907               | 5.80              | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 411      | 2,879           | 2,788              | 2,971             | 3.17              | 50               | 38               | 62               | 24.12             | 91            | 75              | 107             | 17.82            |
| 412      | 1,766           | 1,695              | 1,838             | 4.04              | 17               | 10               | 23               | 41.78             | 28            | 19              | 36              | 32.36            |
| 413      | 2,017           | 1,941              | 2,093             | 3.78              | 17               | 10               | 23               | 41.78             | 17            | 10              | 23              | 41.78            |
| 415      | 52              | 40                 | 65                | 23.48             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 416      | 948             | 896                | 1,000             | 5.52              | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| 417      | 686             | 642                | 731               | 6.49              | 17               | 10               | 23               | 41.78             | 30            | 21              | 40              | 30.86            |
| 418      | 959             | 906                | 1,012             | 5.49              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 419      | 650             | 607                | 694               | 6.66              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 420      | 149             | 128                | 170               | 13.93             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 421      | 485             | 448                | 522               | 7.71              | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 422      | 314             | 284                | 344               | 9.59              | 8                | 3                | 13               | 59.09             | 14            | 7               | 20              | 45.77            |
| 423      | 281             | 253                | 310               | 10.13             | 8                | 3                | 13               | 59.09             | 11            | 5               | 17              | 51.17            |
| 424      | 168             | 146                | 190               | 13.10             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 425      | 212             | 187                | 237               | 11.66             | 14               | 7                | 20               | 45.77             | 36            | 26              | 46              | 28.38            |
| 426      | 986             | 933                | 1,040             | 5.41              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 432      | 1,279           | 1,218              | 1,339             | 4.75              | 14               | 7                | 20               | 45.77             | 33            | 23              | 43              | 29.54            |
| 441      | 504             | 466                | 542               | 7.57              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 442      | 270             | 242                | 298               | 10.34             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 444      | 493             | 456                | 531               | 7.65              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 445      | 1,761           | 1,689              | 1,832             | 4.05              | 25               | 16               | 33               | 34.11             | 36            | 26              | 46              | 28.38            |
| 446      | 526             | 487                | 565               | 7.41              | 14               | 7                | 20               | 45.77             | 19            | 12              | 27              | 38.68            |
| 447      | 2,411           | 2,328              | 2,494             | 3.46              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| 448      | 661             | 618                | 705               | 6.61              | 6                | 2                | 9                | 72.37             | 11            | 5               | 17              | 51.17            |
| 449      | 358             | 326                | 390               | 8.98              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| 450      | 430             | 395                | 465               | 8.19              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 452      | 218             | 193                | 243               | 11.51             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 454      | 386             | 352                | 419               | 8.65              | 17               | 10               | 23               | 41.78             | 28            | 19              | 36              | 32.36            |
| 455      | 141             | 120                | 161               | 14.33             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 471      | 634             | 591                | 677               | 6.75              | 6                | 2                | 9                | 72.37             | 6             | 2               | 9               | 72.37            |
| 499      | 124             | 105                | 143               | 15.26             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |

TABLE 3: STATISTICAL CONFIDENCE AND RELATIVE PRECISION

Thu Oct 31

page 3

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Statistical Confidence and Relative Precision of Estimates  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunters<br>Low Bnd | Hunters<br>Up Bnd | Hunter<br>% RPrec | Hunter<br>Observ | Observ<br>LowBnd | Observ<br>Up Bnd | Observ<br>% RPrec | Lions<br>Seen | Lions<br>LowBnd | Lions<br>Up Bnd | Lions<br>% RPrec |
|----------|-----------------|--------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|---------------|-----------------|-----------------|------------------|
| 500      | 1,686           | 1,617              | 1,756             | 4.14              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 502      | 1,670           | 1,600              | 1,739             | 4.16              | 17               | 10               | 23               | 41.78             | 28            | 19              | 36              | 32.36            |
| 510      | 526             | 487                | 565               | 7.41              | 30               | 21               | 40               | 30.86             | 36            | 26              | 46              | 28.38            |
| 511      | 681             | 636                | 725               | 6.51              | 8                | 3                | 13               | 59.09             | 8             | 3               | 13              | 59.09            |
| 520      | 1,516           | 1,449              | 1,582             | 4.36              | 22               | 14               | 30               | 36.18             | 28            | 19              | 36              | 32.36            |
| 530      | 1,518           | 1,452              | 1,584             | 4.36              | 25               | 16               | 33               | 34.11             | 28            | 19              | 36              | 32.36            |
| 540      | 609             | 567                | 651               | 6.88              | 11               | 5                | 17               | 51.17             | 19            | 12              | 27              | 38.68            |
| 560      | 1,174           | 1,116              | 1,232             | 4.96              | 11               | 5                | 17               | 51.17             | 11            | 5               | 17              | 51.17            |
| 570      | 1,662           | 1,592              | 1,731             | 4.17              | 28               | 19               | 36               | 32.36             | 44            | 33              | 55              | 25.59            |
| 575      | 2,364           | 2,282              | 2,447             | 3.49              | 33               | 23               | 43               | 29.54             | 44            | 33              | 55              | 25.59            |
| 580      | 1,527           | 1,460              | 1,593             | 4.35              | 22               | 14               | 30               | 36.18             | 47            | 35              | 58              | 24.82            |
| 590      | 2,907           | 2,815              | 2,999             | 3.15              | 41               | 30               | 52               | 26.42             | 44            | 33              | 55              | 25.59            |
| 599      | 74              | 60                 | 89                | 19.70             | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 600      | 931             | 880                | 983               | 5.57              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 610      | 559             | 519                | 600               | 7.18              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 611      | 513             | 474                | 551               | 7.50              | 6                | 2                | 9                | 72.37             | 8             | 3               | 13              | 59.09            |
| 620      | 592             | 551                | 634               | 6.98              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 621      | 270             | 242                | 298               | 10.34             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 622      | 240             | 213                | 266               | 10.97             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 623      | 132             | 113                | 152               | 14.77             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 630      | 975             | 922                | 1,028             | 5.44              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 631      | 157             | 136                | 178               | 13.56             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 632      | 160             | 138                | 181               | 13.44             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 640      | 887             | 837                | 938               | 5.70              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 641      | 187             | 164                | 211               | 12.41             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 650      | 810             | 762                | 858               | 5.97              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 651      | 733             | 687                | 779               | 6.27              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 652      | 171             | 149                | 193               | 13.00             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 670      | 747             | 700                | 793               | 6.22              | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 680      | 466             | 429                | 502               | 7.87              | 3                | 0                | 6                | 102.34            | 3             | 0               | 6               | 102.34           |
| 690      | 1,929           | 1,854              | 2,003             | 3.87              | 11               | 5                | 17               | 51.17             | 25            | 16              | 33              | 34.11            |
| 699      | 8               | 3                  | 13                | 59.09             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 700      | 2,408           | 2,325              | 2,492             | 3.46              | 11               | 5                | 17               | 51.17             | 11            | 5               | 17              | 51.17            |
| 701      | 2,695           | 2,607              | 2,783             | 3.27              | 19               | 12               | 27               | 38.68             | 28            | 19              | 36              | 32.36            |
| 702      | 1,623           | 1,555              | 1,691             | 4.22              | 11               | 5                | 17               | 51.17             | 19            | 12              | 27              | 38.68            |
| 703      | 2,659           | 2,571              | 2,747             | 3.29              | 11               | 5                | 17               | 51.17             | 14            | 7               | 20              | 45.77            |
| 704      | 2,855           | 2,764              | 2,945             | 3.18              | 22               | 14               | 30               | 36.18             | 22            | 14              | 30              | 36.18            |
| 705      | 2,097           | 2,019              | 2,175             | 3.71              | 14               | 7                | 20               | 45.77             | 17            | 10              | 23              | 41.78            |
| 799      | 22              | 14                 | 30                | 36.18             | 0                | 0                | 0                | -9.90             | 0             | 0               | 0               | -9.90            |
| 999      | 118             | 100                | 137               | 15.61             | 3                | 0                | 6                | 102.34            | 11            | 5               | 17              | 51.17            |



TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
 2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
 Additional Lion Observation Statistics  
 Statewide and Regional

| Location | Deer<br>Hunters | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDist<br>/Observ | ObsDays<br>/Observ | ObsDays<br>/ObsDist | Lions/<br>ObsDay | Lions/<br>ObsDist |
|----------|-----------------|------------------|--------------------|----------------|---------------|-------------------|------------------|--------------------|--------------------|---------------------|------------------|-------------------|
| State    | 117,526         | 2,273            | 2,337              | 20,589         | 3,455         | 1.93              | 1.52             | 1.03               | 9.06               | 8.81                | 0.17             | 1.48              |
| Region 1 | 20,641          | 620              | 637                | 5,886          | 937           | 3.00              | 1.51             | 1.03               | 9.49               | 9.25                | 0.16             | 1.47              |
| Region 2 | 19,974          | 620              | 639                | 5,968          | 937           | 3.10              | 1.51             | 1.03               | 9.63               | 9.34                | 0.16             | 1.47              |
| Region 3 | 23,821          | 386              | 391                | 3,621          | 598           | 1.62              | 1.55             | 1.01               | 9.39               | 9.25                | 0.17             | 1.53              |
| Region 4 | 24,926          | 295              | 300                | 2,612          | 479           | 1.18              | 1.63             | 1.02               | 8.86               | 8.70                | 0.18             | 1.60              |
| Region 5 | 15,910          | 254              | 254                | 1,653          | 342           | 1.59              | 1.35             | 1.00               | 6.52               | 6.52                | 0.21             | 1.35              |
| Region 6 | 9,418           | 25               | 25                 | 182            | 41            | 0.26              | 1.67             | 1.00               | 7.33               | 7.33                | 0.23             | 1.67              |
| Region 7 | 13,348          | 85               | 88                 | 653            | 110           | 0.64              | 1.29             | 1.03               | 7.65               | 7.41                | 0.17             | 1.25              |
| Region U | 118             | 3                | 3                  | 14             | 11            | 2.33              | 4.00             | 1.00               | 5.00               | 5.00                | 0.80             | 4.00              |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Additional Lion Observation Statistics  
By Lion Management Area

| Location | Lion Mgmt Area Name    | Deer<br>Hunters | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDays<br>/Observ | Lions/<br>ObsDay |
|----------|------------------------|-----------------|------------------|----------------|---------------|-------------------|------------------|--------------------|------------------|
| M1A      | CABINET-YAAK           | 3,657           | 157              | 1,527          | 270           | 4.30              | 1.72             | 9.72               | 0.18             |
| M1B      | CLARK FORK             | 2,789           | 36               | 488            | 36            | 1.28              | 1.00             | 13.62              | 0.07             |
| M1C      | SALISH                 | 11,876          | 339              | 3,196          | 490           | 2.85              | 1.45             | 9.43               | 0.15             |
| M1D      | BOB MARSHALL-MISSIONS  | 3,386           | 52               | 435            | 88            | 1.55              | 1.68             | 8.32               | 0.20             |
| M1E      | WHITEFISH              | 1,590           | 39               | 212            | 50            | 2.43              | 1.29             | 5.50               | 0.23             |
| M1F      | URBAN                  | 805             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| M1U      | REGION 1 UNKNOWN       | 61              | 3                | 28             | 3             | 4.55              | 1.00             | 10.00              | 0.10             |
| M2A      | LOWER CLARK FORK       | 4,445           | 141              | 1,664          | 226           | 3.16              | 1.61             | 11.84              | 0.14             |
| M2B      | BITTERROOT             | 7,594           | 157              | 1,540          | 220           | 2.07              | 1.40             | 9.81               | 0.14             |
| M2C      | ROCK CR-DEERLODGE      | 3,356           | 94               | 981            | 149           | 2.79              | 1.59             | 10.47              | 0.15             |
| M2D      | BLACKFOOT              | 7,015           | 231              | 1,711          | 336           | 3.30              | 1.45             | 7.39               | 0.20             |
| M2U      | REGION 2 UNKNOWN       | 72              | 6                | 72             | 6             | 7.69              | 1.00             | 13.00              | 0.08             |
| M3A      | BIGHOLE                | 3,893           | 63               | 595            | 91            | 1.63              | 1.43             | 9.39               | 0.15             |
| M3B      | GRAVELLYS-PIONEERS     | 7,159           | 110              | 749            | 163           | 1.54              | 1.48             | 6.80               | 0.22             |
| M3C      | YELLOWSTONE            | 4,717           | 50               | 463            | 61            | 1.05              | 1.22             | 9.33               | 0.13             |
| M3D      | BELTS-BRIDGERS-ELKHORN | 10,589          | 168              | 1,813          | 284           | 1.59              | 1.69             | 10.79              | 0.16             |
| M3U      | REGION 3 UNKNOWN       | 33              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| M4A      | EAST FRONT             | 2,929           | 44               | 422            | 77            | 1.51              | 1.75             | 9.56               | 0.18             |
| M4B      | MOUNTAIN-FOOTHILLS     | 12,309          | 185              | 1,764          | 298           | 1.50              | 1.61             | 9.55               | 0.17             |
| M4C      | PRAIRE-AGRICULTURE     | 12,309          | 66               | 413            | 102           | 0.54              | 1.54             | 6.25               | 0.25             |
| M4U      | REGION 4 UNKNOWN       | 124             | 3                | 14             | 3             | 2.22              | 1.00             | 5.00               | 0.20             |
| M5A      | BEARTOOTH FACE         | 2,670           | 33               | 212            | 39            | 1.24              | 1.17             | 6.42               | 0.18             |
| M5B      | MOUNTAIN FOOTHILLS     | 3,229           | 72               | 551            | 110           | 2.22              | 1.54             | 7.69               | 0.20             |
| M5C      | PRAIRE-AGRICULTURE     | 10,997          | 146              | 879            | 190           | 1.33              | 1.30             | 6.02               | 0.22             |
| M5U      | REGION 5 UNKNOWN       | 74              | 3                | 11             | 3             | 3.70              | 1.00             | 4.00               | 0.25             |
| M6A      | REGION 6 DISTRICTS     | 9,410           | 25               | 182            | 41            | 0.26              | 1.67             | 7.33               | 0.23             |
| M6U      | REGION 6 UNKNOWN       | 8               | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| M7A      | REGION 7 DISTRICTS     | 13,325          | 85               | 653            | 110           | 0.64              | 1.29             | 7.65               | 0.17             |
| M7U      | REGION 7 UNKNOWN       | 22              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| M9U      | REGION UNKNOWN         | 118             | 3                | 14             | 11            | 2.33              | 4.00             | 5.00               | 0.80             |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Additional Lion Observation Statistics  
By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit HDs   | Deer Hunters | Hunter Observ | Observ Days | Lions Seen | Percent Observ | Lions/ Observ | ObsDays /Observ | Lions/ ObsDay |
|----------|----------------------------|--------------|---------------|-------------|------------|----------------|---------------|-----------------|---------------|
| R100     | HD:100                     | 2,568        | 116           | 1,177       | 190        | 4.51           | 1.64          | 10.17           | 0.16          |
| R101     | HD:101                     | 2,375        | 74            | 923         | 124        | 3.13           | 1.67          | 12.41           | 0.13          |
| R102     | HD:102                     | 3,279        | 80            | 639         | 105        | 2.44           | 1.31          | 8.00            | 0.16          |
| R103     | HD:103                     | 3,469        | 77            | 697         | 116        | 2.22           | 1.50          | 9.04            | 0.17          |
| R104     | HD:104                     | 1,678        | 47            | 350         | 80         | 2.79           | 1.71          | 7.47            | 0.23          |
| R110     | HD:110                     | 1,590        | 39            | 212         | 50         | 2.43           | 1.29          | 5.50            | 0.23          |
| R120     | HD:120                     | 2,408        | 58            | 581         | 77         | 2.40           | 1.33          | 10.05           | 0.13          |
| R121     | HD:121                     | 2,105        | 30            | 400         | 30         | 1.44           | 1.00          | 13.18           | 0.08          |
| R122     | HD:122                     | 2,039        | 52            | 355         | 69         | 2.57           | 1.32          | 6.79            | 0.19          |
| R123     | HD:123                     | 416          | 6             | 88          | 6          | 1.32           | 1.00          | 16.00           | 0.06          |
| R124     | HD:124                     | 457          | 0             | 0           | 0          | 0.00           | -9.90         | -9.90           | -9.00         |
| R130     | HD:130                     | 1,786        | 30            | 265         | 58         | 1.70           | 1.91          | 8.73            | 0.22          |
| R132     | HD:132,170                 | 1,887        | 11            | 113         | 17         | 0.58           | 1.50          | 10.25           | 0.15          |
| R140     | HD:140                     | 430          | 8             | 33          | 8          | 1.92           | 1.00          | 4.00            | 0.25          |
| R141     | HD:141                     | 146          | 3             | 6           | 3          | 1.89           | 1.00          | 2.00            | 0.50          |
| R150     | HD:150,151                 | 88           | 3             | 19          | 3          | 3.13           | 1.00          | 7.00            | 0.14          |
| R199     | HD:R1 UNKN                 | 61           | 3             | 28          | 3          | 4.55           | 1.00          | 10.00           | 0.10          |
| R200     | HD:200,201                 | 2,342        | 55            | 692         | 94         | 2.35           | 1.70          | 12.55           | 0.14          |
| R202     | HD:202,203                 | 2,651        | 88            | 973         | 132        | 3.33           | 1.50          | 11.03           | 0.14          |
| R204     | HD:204,260,261             | 3,905        | 61            | 532         | 88         | 1.55           | 1.45          | 8.77            | 0.17          |
| R210     | HD:210,211,216             | 1,290        | 50            | 452         | 85         | 3.85           | 1.72          | 9.11            | 0.19          |
| R212     | HD:212,215                 | 1,728        | 41            | 468         | 58         | 2.39           | 1.40          | 11.33           | 0.12          |
| R213     | HD:213,214                 | 579          | 6             | 61          | 6          | 0.95           | 1.00          | 11.00           | 0.09          |
| R240     | HD:240                     | 2,053        | 33            | 284         | 47         | 1.61           | 1.42          | 8.58            | 0.17          |
| R250     | HD:250                     | 1,116        | 41            | 485         | 61         | 3.70           | 1.47          | 11.73           | 0.13          |
| R270     | HD:270                     | 1,874        | 22            | 240         | 25         | 1.18           | 1.13          | 10.88           | 0.10          |
| R280     | HD:280,281,284,293         | 2,028        | 74            | 733         | 102        | 3.67           | 1.37          | 9.85            | 0.14          |
| R282     | HD:282                     | 182          | 6             | 33          | 6          | 3.03           | 1.00          | 6.00            | 0.17          |
| R283     | HD:283,285                 | 2,979        | 85            | 482         | 124        | 2.87           | 1.45          | 5.65            | 0.26          |
| R290     | HD:290,291,292             | 2,491        | 69            | 463         | 105        | 2.77           | 1.52          | 6.72            | 0.23          |
| R299     | HD:R2 UNKN                 | 72           | 6             | 72          | 6          | 7.69           | 1.00          | 13.00           | 0.08          |
| R300     | HD:300,302,328,329         | 1,113        | 22            | 152         | 25         | 1.98           | 1.13          | 6.88            | 0.16          |
| R301     | HD:301                     | 995          | 8             | 124         | 17         | 0.83           | 2.00          | 15.00           | 0.13          |
| R310     | HD:310,311,360,361,362     | 2,576        | 19            | 143         | 22         | 0.75           | 1.14          | 7.43            | 0.15          |
| R312     | HD:312,393                 | 2,631        | 41            | 504         | 52         | 1.57           | 1.27          | 12.20           | 0.10          |
| R313     | HD:313,316                 | 317          | 8             | 58          | 8          | 2.61           | 1.00          | 7.00            | 0.14          |
| R314     | HD:314                     | 609          | 8             | 36          | 8          | 1.36           | 1.00          | 4.33            | 0.23          |
| R315     | HD:315                     | 1,722        | 14            | 66          | 25         | 0.80           | 1.80          | 4.80            | 0.38          |
| R317     | HD:317                     | 595          | 6             | 102         | 6          | 0.93           | 1.00          | 18.50           | 0.05          |
| R318     | HD:318,350                 | 769          | 17            | 132         | 28         | 2.15           | 1.67          | 8.00            | 0.21          |
| R319     | HD:319,341                 | 942          | 19            | 212         | 22         | 2.05           | 1.14          | 11.00           | 0.10          |
| R320     | HD:320,333                 | 2,604        | 47            | 361         | 69         | 1.80           | 1.47          | 7.71            | 0.19          |
| R321     | HD:321,331,332             | 1,794        | 30            | 218         | 50         | 1.69           | 1.64          | 7.18            | 0.23          |
| R322     | HD:322,326,330             | 2,494        | 25            | 176         | 39         | 0.99           | 1.56          | 7.11            | 0.22          |
| R323     | HD:323,324,325,327         | 1,521        | 17            | 61          | 30         | 1.09           | 1.83          | 3.67            | 0.50          |
| R335     | HD:335,339,343             | 1,893        | 25            | 267         | 52         | 1.31           | 2.11          | 10.78           | 0.20          |
| R340     | HD:340                     | 1,518        | 14            | 165         | 19         | 0.91           | 1.40          | 12.00           | 0.12          |
| R370     | HD:370,380                 | 2,262        | 36            | 444         | 58         | 1.58           | 1.62          | 12.38           | 0.13          |
| R390     | HD:390,391,392             | 1,937        | 36            | 400         | 69         | 1.85           | 1.92          | 11.15           | 0.17          |
| R399     | HD:R3 UNKN                 | 33           | 0             | 0           | 0          | 0.00           | -9.90         | -9.90           | -9.00         |
| R400     | HD:400,401,403,406,415,441 | 4,122        | 11            | 36          | 22         | 0.27           | 2.00          | 3.25            | 0.62          |
| R404     | HD:404,421,444,450         | 3,392        | 22            | 171         | 33         | 0.65           | 1.50          | 7.75            | 0.19          |
| R405     | HD:405,447,471             | 4,114        | 19            | 171         | 19         | 0.47           | 1.00          | 8.86            | 0.11          |
| R410     | HD:410,417,419,426         | 3,006        | 28            | 154         | 44         | 0.92           | 1.60          | 5.60            | 0.29          |
| R411     | HD:411,412                 | 4,348        | 66            | 805         | 118        | 1.52           | 1.79          | 12.17           | 0.15          |
| R413     | HD:413,432                 | 3,144        | 30            | 204         | 50         | 0.96           | 1.64          | 6.73            | 0.24          |
| R416     | HD:416,446,449,452,454     | 2,196        | 50            | 482         | 74         | 2.26           | 1.50          | 9.72            | 0.15          |
| R418     | HD:418,420,448             | 1,637        | 14            | 61          | 19         | 0.84           | 1.40          | 4.40            | 0.32          |
| R422     | HD:422,423,424,425,442     | 1,168        | 30            | 303         | 61         | 2.59           | 2.00          | 10.00           | 0.20          |
| R445     | HD:445,455                 | 1,887        | 25            | 212         | 36         | 1.31           | 1.44          | 8.56            | 0.17          |
| R499     | HD:R4 UNKN                 | 124          | 3             | 14          | 3          | 2.22           | 1.00          | 5.00            | 0.20          |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
 2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
 Additional Lion Observation Statistics  
 By Lion Regulations/Quota Unit

| Location | Lion Regs/Quota Unit   | Deer<br>Hunters | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDays<br>/Observ | Lions/<br>ObsDay |
|----------|------------------------|-----------------|------------------|----------------|---------------|-------------------|------------------|--------------------|------------------|
| R500     | HD:500,570             | 3,293           | 30               | 303            | 47            | 0.92              | 1.55             | 10.00              | 0.15             |
| R502     | HD:502,575             | 3,946           | 50               | 242            | 72            | 1.26              | 1.44             | 4.89               | 0.30             |
| R510     | HD:510                 | 526             | 30               | 251            | 36            | 5.76              | 1.18             | 8.27               | 0.14             |
| R511     | HD:511                 | 681             | 8                | 110            | 8             | 1.21              | 1.00             | 13.33              | 0.08             |
| R520     | HD:520                 | 1,516           | 22               | 171            | 28            | 1.45              | 1.25             | 7.75               | 0.16             |
| R530     | HD:530,590             | 4,296           | 66               | 333            | 72            | 1.54              | 1.08             | 5.04               | 0.21             |
| R540     | HD:540                 | 609             | 11               | 91             | 19            | 1.81              | 1.75             | 8.25               | 0.21             |
| R560     | HD:560                 | 1,174           | 11               | 41             | 11            | 0.94              | 1.00             | 3.75               | 0.27             |
| R580     | HD:580                 | 1,527           | 22               | 99             | 47            | 1.44              | 2.13             | 4.50               | 0.47             |
| R599     | HD:R5 UNKN             | 74              | 3                | 11             | 3             | 3.70              | 1.00             | 4.00               | 0.25             |
| R600     | HD:600'S (NOT 680,690) | 7,255           | 11               | 52             | 14            | 0.15              | 1.25             | 4.75               | 0.26             |
| R680     | HD:680,690             | 2,348           | 14               | 130            | 28            | 0.59              | 2.00             | 9.40               | 0.21             |
| R699     | HD:R6 UNKN             | 8               | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| R700     | HD:700'S               | 13,325          | 85               | 653            | 110           | 0.64              | 1.29             | 7.65               | 0.17             |
| R799     | HD:R7 UNKN             | 22              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| R999     | HD:REGION UNKN         | 118             | 3                | 14             | 11            | 2.33              | 4.00             | 5.00               | 0.80             |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 1

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Additional Lion Observation Statistics  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDays<br>/Observ | Lions/<br>ObsDay |
|----------|-----------------|------------------|----------------|---------------|-------------------|------------------|--------------------|------------------|
| 100      | 2,568           | 116              | 1,177          | 190           | 4.51              | 1.64             | 10.17              | 0.16             |
| 101      | 2,375           | 74               | 923            | 124           | 3.13              | 1.67             | 12.41              | 0.13             |
| 102      | 3,279           | 80               | 639            | 105           | 2.44              | 1.31             | 8.00               | 0.16             |
| 103      | 3,469           | 77               | 697            | 116           | 2.22              | 1.50             | 9.04               | 0.17             |
| 104      | 1,678           | 47               | 350            | 80            | 2.79              | 1.71             | 7.47               | 0.23             |
| 110      | 1,590           | 39               | 212            | 50            | 2.43              | 1.29             | 5.50               | 0.23             |
| 120      | 2,408           | 58               | 581            | 77            | 2.40              | 1.33             | 10.05              | 0.13             |
| 121      | 2,105           | 30               | 400            | 30            | 1.44              | 1.00             | 13.18              | 0.08             |
| 122      | 2,039           | 52               | 355            | 69            | 2.57              | 1.32             | 6.79               | 0.19             |
| 123      | 416             | 6                | 88             | 6             | 1.32              | 1.00             | 16.00              | 0.06             |
| 124      | 457             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 130      | 1,786           | 30               | 265            | 58            | 1.70              | 1.91             | 8.73               | 0.22             |
| 132      | 1,157           | 11               | 113            | 17            | 0.95              | 1.50             | 10.25              | 0.15             |
| 140      | 430             | 8                | 33             | 8             | 1.92              | 1.00             | 4.00               | 0.25             |
| 141      | 146             | 3                | 6              | 3             | 1.89              | 1.00             | 2.00               | 0.50             |
| 150      | 63              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 151      | 25              | 3                | 19             | 3             | 11.11             | 1.00             | 7.00               | 0.14             |
| 170      | 805             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 199      | 61              | 3                | 28             | 3             | 4.55              | 1.00             | 10.00              | 0.10             |
| 200      | 700             | 11               | 174            | 14            | 1.57              | 1.25             | 15.75              | 0.08             |
| 201      | 1,755           | 44               | 518            | 80            | 2.51              | 1.81             | 11.75              | 0.15             |
| 202      | 1,516           | 30               | 358            | 33            | 2.00              | 1.09             | 11.82              | 0.09             |
| 203      | 1,237           | 61               | 614            | 99            | 4.90              | 1.64             | 10.14              | 0.16             |
| 204      | 1,799           | 36               | 193            | 44            | 1.99              | 1.23             | 5.38               | 0.23             |
| 210      | 907             | 30               | 289            | 55            | 3.34              | 1.82             | 9.55               | 0.19             |
| 211      | 226             | 14               | 80             | 19            | 6.10              | 1.40             | 5.80               | 0.24             |
| 212      | 1,091           | 22               | 278            | 33            | 2.02              | 1.50             | 12.63              | 0.12             |
| 213      | 344             | 6                | 61             | 6             | 1.60              | 1.00             | 11.00              | 0.09             |
| 214      | 281             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 215      | 738             | 19               | 190            | 25            | 2.61              | 1.29             | 9.86               | 0.13             |
| 216      | 226             | 6                | 83             | 11            | 2.44              | 2.00             | 15.00              | 0.13             |
| 240      | 2,053           | 33               | 284            | 47            | 1.61              | 1.42             | 8.58               | 0.17             |
| 250      | 1,116           | 41               | 485            | 61            | 3.70              | 1.47             | 11.73              | 0.13             |
| 260      | 1,576           | 11               | 242            | 11            | 0.70              | 1.00             | 22.00              | 0.05             |
| 261      | 783             | 14               | 96             | 33            | 1.76              | 2.40             | 7.00               | 0.34             |
| 270      | 1,874           | 22               | 240            | 25            | 1.18              | 1.13             | 10.88              | 0.10             |
| 280      | 141             | 6                | 14             | 8             | 3.92              | 1.50             | 2.50               | 0.60             |
| 281      | 1,011           | 44               | 501            | 55            | 4.36              | 1.25             | 11.37              | 0.11             |
| 282      | 182             | 6                | 33             | 6             | 3.03              | 1.00             | 6.00               | 0.17             |
| 283      | 1,317           | 28               | 146            | 36            | 2.09              | 1.30             | 5.30               | 0.25             |
| 284      | 165             | 6                | 55             | 8             | 3.33              | 1.50             | 10.00              | 0.15             |
| 285      | 1,821           | 58               | 336            | 88            | 3.18              | 1.52             | 5.81               | 0.26             |
| 290      | 179             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 291      | 526             | 11               | 83             | 14            | 2.09              | 1.25             | 7.50               | 0.17             |
| 292      | 1,865           | 58               | 380            | 91            | 3.10              | 1.57             | 6.57               | 0.24             |
| 293      | 904             | 19               | 163            | 30            | 2.13              | 1.57             | 8.43               | 0.19             |
| 299      | 72              | 6                | 72             | 6             | 7.69              | 1.00             | 13.00              | 0.08             |
| 300      | 234             | 6                | 39             | 6             | 2.35              | 1.00             | 7.00               | 0.14             |
| 301      | 995             | 8                | 124            | 17            | 0.83              | 2.00             | 15.00              | 0.13             |
| 302      | 295             | 6                | 33             | 6             | 1.87              | 1.00             | 6.00               | 0.17             |
| 310      | 209             | 3                | 6              | 3             | 1.32              | 1.00             | 2.00               | 0.50             |
| 311      | 1,750           | 11               | 124            | 14            | 0.63              | 1.25             | 11.25              | 0.11             |
| 312      | 1,637           | 28               | 424            | 36            | 1.68              | 1.30             | 15.40              | 0.08             |
| 313      | 284             | 6                | 50             | 6             | 1.94              | 1.00             | 9.00               | 0.11             |
| 314      | 609             | 8                | 36             | 8             | 1.36              | 1.00             | 4.33               | 0.23             |
| 315      | 1,722           | 14               | 66             | 25            | 0.80              | 1.80             | 4.80               | 0.38             |
| 316      | 33              | 3                | 8              | 3             | 8.33              | 1.00             | 3.00               | 0.33             |
| 317      | 595             | 6                | 102            | 6             | 0.93              | 1.00             | 18.50              | 0.05             |
| 318      | 350             | 8                | 77             | 14            | 2.36              | 1.67             | 9.33               | 0.18             |
| 319      | 637             | 11               | 116            | 11            | 1.73              | 1.00             | 10.50              | 0.10             |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 2

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Additional Lion Observation Statistics  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDays<br>/Observ | Lions/<br>ObsDay |
|----------|-----------------|------------------|----------------|---------------|-------------------|------------------|--------------------|------------------|
| 320      | 857             | 19               | 196            | 36            | 2.25              | 1.86             | 10.14              | 0.18             |
| 321      | 350             | 6                | 113            | 8             | 1.57              | 1.50             | 20.50              | 0.07             |
| 322      | 1,196           | 14               | 91             | 25            | 1.15              | 1.80             | 6.60               | 0.27             |
| 323      | 220             | 8                | 25             | 22            | 3.75              | 2.67             | 3.00               | 0.89             |
| 324      | 455             | 3                | 14             | 3             | 0.61              | 1.00             | 5.00               | 0.20             |
| 325      | 727             | 6                | 22             | 6             | 0.76              | 1.00             | 4.00               | 0.25             |
| 326      | 829             | 6                | 61             | 8             | 0.66              | 1.50             | 11.00              | 0.14             |
| 327      | 196             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 328      | 198             | 6                | 44             | 8             | 2.78              | 1.50             | 8.00               | 0.19             |
| 329      | 482             | 6                | 36             | 6             | 1.14              | 1.00             | 6.50               | 0.15             |
| 330      | 601             | 6                | 25             | 6             | 0.92              | 1.00             | 4.50               | 0.22             |
| 331      | 1,152           | 22               | 99             | 39            | 1.91              | 1.75             | 4.50               | 0.39             |
| 332      | 408             | 3                | 6              | 3             | 0.68              | 1.00             | 2.00               | 0.50             |
| 333      | 1,791           | 28               | 165            | 33            | 1.54              | 1.20             | 6.00               | 0.20             |
| 335      | 598             | 8                | 99             | 19            | 1.38              | 2.33             | 12.00              | 0.19             |
| 339      | 683             | 3                | 33             | 8             | 0.40              | 3.00             | 12.00              | 0.25             |
| 340      | 1,518           | 14               | 165            | 19            | 0.91              | 1.40             | 12.00              | 0.12             |
| 341      | 347             | 8                | 96             | 11            | 2.38              | 1.33             | 11.67              | 0.11             |
| 343      | 664             | 14               | 135            | 25            | 2.07              | 1.80             | 9.80               | 0.18             |
| 350      | 444             | 8                | 55             | 14            | 1.86              | 1.67             | 6.67               | 0.25             |
| 360      | 526             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 361      | 116             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 362      | 130             | 6                | 14             | 6             | 4.26              | 1.00             | 2.50               | 0.40             |
| 370      | 248             | 6                | 14             | 8             | 2.22              | 1.50             | 2.50               | 0.60             |
| 380      | 2,039           | 30               | 430            | 50            | 1.49              | 1.64             | 14.18              | 0.12             |
| 390      | 204             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 391      | 722             | 6                | 94             | 17            | 0.76              | 3.00             | 17.00              | 0.18             |
| 392      | 1,083           | 30               | 306            | 52            | 2.80              | 1.73             | 10.09              | 0.17             |
| 393      | 1,110           | 14               | 80             | 17            | 1.24              | 1.20             | 5.80               | 0.21             |
| 399      | 33              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 400      | 1,582           | 3                | 6              | 8             | 0.17              | 3.00             | 2.00               | 1.50             |
| 401      | 1,414           | 3                | 17             | 6             | 0.19              | 2.00             | 6.00               | 0.33             |
| 403      | 171             | 3                | 8              | 3             | 1.61              | 1.00             | 3.00               | 0.33             |
| 404      | 2,102           | 8                | 52             | 17            | 0.39              | 2.00             | 6.33               | 0.32             |
| 405      | 1,306           | 6                | 14             | 6             | 0.42              | 1.00             | 2.50               | 0.40             |
| 406      | 758             | 3                | 6              | 6             | 0.36              | 2.00             | 2.00               | 1.00             |
| 410      | 857             | 6                | 11             | 8             | 0.64              | 1.50             | 2.00               | 0.75             |
| 411      | 2,879           | 50               | 700            | 91            | 1.72              | 1.83             | 14.11              | 0.13             |
| 412      | 1,766           | 17               | 105            | 28            | 0.94              | 1.67             | 6.33               | 0.26             |
| 413      | 2,017           | 17               | 138            | 17            | 0.82              | 1.00             | 8.33               | 0.12             |
| 415      | 52              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 416      | 948             | 14               | 105            | 19            | 1.45              | 1.40             | 7.60               | 0.18             |
| 417      | 686             | 17               | 132            | 30            | 2.41              | 1.83             | 8.00               | 0.23             |
| 418      | 959             | 6                | 14             | 6             | 0.57              | 1.00             | 2.50               | 0.40             |
| 419      | 650             | 6                | 11             | 6             | 0.85              | 1.00             | 2.00               | 0.50             |
| 420      | 149             | 3                | 11             | 3             | 1.85              | 1.00             | 4.00               | 0.25             |
| 421      | 485             | 6                | 30             | 8             | 1.14              | 1.50             | 5.50               | 0.27             |
| 422      | 314             | 8                | 28             | 14            | 2.63              | 1.67             | 3.33               | 0.50             |
| 423      | 281             | 8                | 39             | 11            | 2.94              | 1.33             | 4.67               | 0.29             |
| 424      | 168             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 425      | 212             | 14               | 237            | 36            | 6.49              | 2.60             | 17.20              | 0.15             |
| 426      | 986             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 432      | 1,279           | 14               | 66             | 33            | 1.08              | 2.40             | 4.80               | 0.50             |
| 441      | 504             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 442      | 270             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 444      | 493             | 6                | 80             | 6             | 1.12              | 1.00             | 14.50              | 0.07             |
| 445      | 1,761           | 25               | 212            | 36            | 1.41              | 1.44             | 8.56               | 0.17             |
| 446      | 526             | 14               | 146            | 19            | 2.62              | 1.40             | 10.60              | 0.13             |
| 447      | 2,411           | 8                | 135            | 8             | 0.34              | 1.00             | 16.33              | 0.06             |
| 448      | 661             | 6                | 36             | 11            | 0.83              | 2.00             | 6.50               | 0.31             |
| 449      | 358             | 8                | 74             | 8             | 2.31              | 1.00             | 9.00               | 0.11             |

TABLE 4: ADDITIONAL LION OBSERVATION STATISTICS

Thu Oct 31

page 3

Montana Fish Wildlife and Parks  
2001 Mountain Lion Sightings while Deer Hunting (MT Residents)  
Additional Lion Observation Statistics  
By Deer Hunting District

| Location | Deer<br>Hunters | Hunter<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ | Lions/<br>Observ | ObsDays<br>/Observ | Lions/<br>ObsDay |
|----------|-----------------|------------------|----------------|---------------|-------------------|------------------|--------------------|------------------|
| 450      | 430             | 3                | 8              | 3             | 0.64              | 1.00             | 3.00               | 0.33             |
| 452      | 218             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 454      | 386             | 17               | 157            | 28            | 4.29              | 1.67             | 9.50               | 0.18             |
| 455      | 141             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 471      | 634             | 6                | 22             | 6             | 0.87              | 1.00             | 4.00               | 0.25             |
| 499      | 124             | 3                | 14             | 3             | 2.22              | 1.00             | 5.00               | 0.20             |
| 500      | 1,686           | 3                | 11             | 3             | 0.16              | 1.00             | 4.00               | 0.25             |
| 502      | 1,670           | 17               | 96             | 28            | 0.99              | 1.67             | 5.83               | 0.29             |
| 510      | 526             | 30               | 251            | 36            | 5.76              | 1.18             | 8.27               | 0.14             |
| 511      | 681             | 8                | 110            | 8             | 1.21              | 1.00             | 13.33              | 0.08             |
| 520      | 1,516           | 22               | 171            | 28            | 1.45              | 1.25             | 7.75               | 0.16             |
| 530      | 1,518           | 25               | 110            | 28            | 1.63              | 1.11             | 4.44               | 0.25             |
| 540      | 609             | 11               | 91             | 19            | 1.81              | 1.75             | 8.25               | 0.21             |
| 560      | 1,174           | 11               | 41             | 11            | 0.94              | 1.00             | 3.75               | 0.27             |
| 570      | 1,662           | 28               | 292            | 44            | 1.66              | 1.60             | 10.60              | 0.15             |
| 575      | 2,364           | 33               | 146            | 44            | 1.40              | 1.33             | 4.42               | 0.30             |
| 580      | 1,527           | 22               | 99             | 47            | 1.44              | 2.13             | 4.50               | 0.47             |
| 590      | 2,907           | 41               | 223            | 44            | 1.42              | 1.07             | 5.40               | 0.20             |
| 599      | 74              | 3                | 11             | 3             | 3.70              | 1.00             | 4.00               | 0.25             |
| 600      | 931             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 610      | 559             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 611      | 513             | 6                | 17             | 8             | 1.08              | 1.50             | 3.00               | 0.50             |
| 620      | 592             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 621      | 270             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 622      | 240             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 623      | 132             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 630      | 975             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 631      | 157             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 632      | 160             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 640      | 887             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 641      | 187             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 650      | 810             | 3                | 28             | 3             | 0.34              | 1.00             | 10.00              | 0.10             |
| 651      | 733             | 3                | 8              | 3             | 0.38              | 1.00             | 3.00               | 0.33             |
| 652      | 171             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 670      | 747             | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 680      | 466             | 3                | 19             | 3             | 0.59              | 1.00             | 7.00               | 0.14             |
| 690      | 1,929           | 11               | 110            | 25            | 0.57              | 2.25             | 10.00              | 0.23             |
| 699      | 8               | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 700      | 2,408           | 11               | 77             | 11            | 0.46              | 1.00             | 7.00               | 0.14             |
| 701      | 2,695           | 19               | 176            | 28            | 0.72              | 1.43             | 9.14               | 0.16             |
| 702      | 1,623           | 11               | 33             | 19            | 0.68              | 1.75             | 3.00               | 0.58             |
| 703      | 2,659           | 11               | 110            | 14            | 0.41              | 1.25             | 10.00              | 0.13             |
| 704      | 2,855           | 22               | 141            | 22            | 0.77              | 1.00             | 6.37               | 0.16             |
| 705      | 2,097           | 14               | 116            | 17            | 0.66              | 1.20             | 8.40               | 0.14             |
| 799      | 22              | 0                | 0              | 0             | 0.00              | -9.90            | -9.90              | -9.00            |
| 999      | 118             | 3                | 14             | 11            | 2.33              | 4.00             | 5.00               | 0.80             |



## **Appendix A**

### **2001 Mountain Lion Management Areas, Regulations/Quota Units, and Hunting Districts**



# MANAGEMENT AREAS, REGULATIONS/QUOTA UNITS, HUNTING DISTRICTS

Wed Oct 30

page 1

2001 Mountain Lion Hunting Districts Table, Sorted by Region-MgmtArea

| Region | Mgmt Area | Mgmt Area Name        | Hunting District | Regs Unit | Regs Unit Name     |
|--------|-----------|-----------------------|------------------|-----------|--------------------|
| 1      | M1A       | CABINET-YAAK          | 100              | R100      | HD:100             |
|        |           |                       | 104              | R104      | HD:104             |
|        | M1B       | CLARK FORK            | 121              | R121      | HD:121             |
|        |           |                       | 123              | R123      | HD:123             |
|        |           |                       | 124              | R124      | HD:124             |
|        | M1C       | SALISH                | 101              | R101      | HD:101             |
|        |           |                       | 102              | R102      | HD:102             |
|        |           |                       | 103              | R103      | HD:103             |
|        |           |                       | 120              | R120      | HD:120             |
|        |           |                       | 122              | R122      | HD:122             |
|        | M1D       | BOB MARSHALL-MISSIONS | 130              | R130      | HD:130             |
|        |           |                       | 132              | R132      | HD:132,170         |
|        |           |                       | 140              | R140      | HD:140             |
|        |           |                       | 141              | R141      | HD:141             |
|        |           |                       | 150              | R150      | HD:150,151         |
|        |           |                       | 151              | R150      | HD:150,151         |
|        | M1E       | WHITEFISH             | 110              | R110      | HD:110             |
|        | M1F       | URBAN                 | 170              | R132      | HD:132,170         |
|        | M1U       | REGION 1 UNKNOWN      | 199              | R199      | HD:R1 UNKN         |
| 2      | M2A       | LOWER CLARK FORK      | 200              | R200      | HD:200,201         |
|        |           |                       | 201              | R200      | HD:200,201         |
|        |           |                       | 202              | R202      | HD:202,203         |
|        |           |                       | 203              | R202      | HD:202,203         |
|        | M2B       | BITTERROOT            | 204              | R204      | HD:204,260,261     |
|        |           |                       | 240              | R240      | HD:240             |
|        |           |                       | 250              | R250      | HD:250             |
|        |           |                       | 260              | R204      | HD:204,260,261     |
|        |           |                       | 261              | R204      | HD:204,260,261     |
|        |           |                       | 270              | R270      | HD:270             |
|        | M2C       | ROCK CR-DEERLODGE     | 210              | R210      | HD:210,211,216     |
|        |           |                       | 211              | R210      | HD:210,211,216     |
|        |           |                       | 212              | R212      | HD:212,215         |
|        |           |                       | 213              | R213      | HD:213,214         |
|        |           |                       | 214              | R213      | HD:213,214         |
|        |           |                       | 215              | R212      | HD:212,215         |
|        |           |                       | 216              | R210      | HD:210,211,216     |
|        | M2D       | BLACKFOOT             | 280              | R280      | HD:280,281,284,293 |
|        |           |                       | 281              | R280      | HD:280,281,284,293 |
|        |           |                       | 282              | R282      | HD:282             |
|        |           |                       | 283              | R283      | HD:283,285         |
|        |           |                       | 284              | R280      | HD:280,281,284,293 |
|        |           |                       | 285              | R283      | HD:283,285         |
|        |           |                       | 290              | R290      | HD:290,291,292     |
|        |           |                       | 291              | R290      | HD:290,291,292     |
|        |           |                       | 292              | R290      | HD:290,291,292     |
|        |           |                       | 293              | R280      | HD:280,281,284,293 |
|        | M2U       | REGION 2 UNKNOWN      | 299              | R299      | HD:R2 UNKN         |

# MANAGEMENT AREAS, REGULATIONS/QUOTA UNITS, HUNTING DISTRICTS

Wed Oct 30

page 2

2001 Mountain Lion Hunting Districts Table, Sorted by Region-MgmtArea

| Region | Mgmt Area | Mgmt Area Name          | Hunting District | Regs Unit | Regs Unit Name             |
|--------|-----------|-------------------------|------------------|-----------|----------------------------|
| 3      | M3A       | BIGHOLE                 | 319              | R319      | HD:319,341                 |
|        |           |                         | 321              | R321      | HD:321,331,332             |
|        |           |                         | 331              | R321      | HD:321,331,332             |
|        |           |                         | 332              | R321      | HD:321,331,332             |
|        |           |                         | 340              | R340      | HD:340                     |
|        |           |                         | 341              | R319      | HD:319,341                 |
|        | M3B       | GRAVELLYS-PIONEERS      | 300              | R300      | HD:300,302,328,329         |
|        |           |                         | 302              | R300      | HD:300,302,328,329         |
|        |           |                         | 320              | R320      | HD:320,333                 |
|        |           |                         | 322              | R322      | HD:322,326,330             |
|        |           |                         | 323              | R323      | HD:323,324,325,327         |
|        |           |                         | 324              | R323      | HD:323,324,325,327         |
|        |           |                         | 325              | R323      | HD:323,324,325,327         |
|        |           |                         | 326              | R322      | HD:322,326,330             |
|        |           |                         | 327              | R323      | HD:323,324,325,327         |
|        |           |                         | 328              | R300      | HD:300,302,328,329         |
|        |           |                         | 329              | R300      | HD:300,302,328,329         |
|        |           |                         | 330              | R322      | HD:322,326,330             |
|        |           |                         | 333              | R320      | HD:320,333                 |
|        | M3C       | YELLOWSTONE             | 301              | R301      | HD:301                     |
|        |           |                         | 310              | R310      | HD:310,311,360,361,362     |
|        |           |                         | 311              | R310      | HD:310,311,360,361,362     |
|        |           |                         | 313              | R313      | HD:313,316                 |
|        |           |                         | 314              | R314      | HD:314                     |
|        |           |                         | 316              | R313      | HD:313,316                 |
|        |           |                         | 317              | R317      | HD:317                     |
|        |           |                         | 360              | R310      | HD:310,311,360,361,362     |
|        |           |                         | 361              | R310      | HD:310,311,360,361,362     |
|        |           |                         | 362              | R310      | HD:310,311,360,361,362     |
|        | M3D       | BELTS-BRIDGERS-ELKHORNS | 312              | R312      | HD:312,393                 |
|        |           |                         | 315              | R315      | HD:315                     |
|        |           |                         | 318              | R318      | HD:318,350                 |
|        |           |                         | 335              | R335      | HD:335,339,343             |
|        |           |                         | 339              | R335      | HD:335,339,343             |
|        |           |                         | 343              | R335      | HD:335,339,343             |
|        |           |                         | 350              | R318      | HD:318,350                 |
|        |           |                         | 370              | R370      | HD:370,380                 |
|        |           |                         | 380              | R370      | HD:370,380                 |
|        |           |                         | 390              | R390      | HD:390,391,392             |
|        |           |                         | 391              | R390      | HD:390,391,392             |
|        |           |                         | 392              | R390      | HD:390,391,392             |
|        |           |                         | 393              | R312      | HD:312,393                 |
|        | M3U       | REGION 3 UNKNOWN        | 399              | R399      | HD:R3 UNKN                 |
| 4      | M4A       | EAST FRONT              | 415              | R400      | HD:400,401,403,406,415,441 |
|        |           |                         | 421              | R404      | HD:404,421,444,450         |
|        |           |                         | 422              | R422      | HD:422,423,424,425,442     |
|        |           |                         | 423              | R422      | HD:422,423,424,425,442     |
|        |           |                         | 424              | R422      | HD:422,423,424,425,442     |
|        |           |                         | 425              | R422      | HD:422,423,424,425,442     |
|        |           |                         | 441              | R400      | HD:400,401,403,406,415,441 |
|        |           |                         | 442              | R422      | HD:422,423,424,425,442     |
|        |           |                         | 444              | R404      | HD:404,421,444,450         |
|        |           |                         | 450              | R404      | HD:404,421,444,450         |

# MANAGEMENT AREAS, REGULATIONS/QUOTA UNITS, HUNTING DISTRICTS

Wed Oct 30

page 3

2001 Mountain Lion Hunting Districts Table, Sorted by Region-MgmtArea

| Region | Mgmt Area | Mgmt Area Name     | Hunting District | Regs Unit | Regs Unit Name             |
|--------|-----------|--------------------|------------------|-----------|----------------------------|
| 4      | M4B       | MOUNTAIN-FOOTHILLS | 411              | R411      | HD:411,412                 |
|        |           |                    | 412              | R411      | HD:411,412                 |
|        |           |                    | 413              | R413      | HD:413,432                 |
|        |           |                    | 416              | R416      | HD:416,446,449,452,454     |
|        |           |                    | 418              | R418      | HD:418,420,448             |
|        |           |                    | 420              | R418      | HD:418,420,448             |
|        |           |                    | 432              | R413      | HD:413,432                 |
|        |           |                    | 445              | R445      | HD:445,455                 |
|        |           |                    | 446              | R416      | HD:416,446,449,452,454     |
|        |           |                    | 448              | R418      | HD:418,420,448             |
|        |           |                    | 449              | R416      | HD:416,446,449,452,454     |
|        |           |                    | 452              | R416      | HD:416,446,449,452,454     |
|        |           |                    | 454              | R416      | HD:416,446,449,452,454     |
|        |           |                    | 455              | R445      | HD:445,455                 |
|        | M4C       | PRAIRE-AGRICULTURE | 400              | R400      | HD:400,401,403,406,415,441 |
|        |           |                    | 401              | R400      | HD:400,401,403,406,415,441 |
|        |           |                    | 403              | R400      | HD:400,401,403,406,415,441 |
|        |           |                    | 404              | R404      | HD:404,421,444,450         |
|        |           |                    | 405              | R405      | HD:405,447,471             |
|        |           |                    | 406              | R400      | HD:400,401,403,406,415,441 |
|        |           |                    | 410              | R410      | HD:410,417,419,426         |
|        |           |                    | 417              | R410      | HD:410,417,419,426         |
|        |           |                    | 419              | R410      | HD:410,417,419,426         |
|        |           |                    | 426              | R410      | HD:410,417,419,426         |
|        |           |                    | 447              | R405      | HD:405,447,471             |
|        |           |                    | 471              | R405      | HD:405,447,471             |
|        | M4U       | REGION 4 UNKNOWN   | 499              | R499      | HD:R4 UNKN                 |
| 5      | M5A       | BEARTOOTH FACE     | 520              | R520      | HD:520                     |
|        |           |                    | 560              | R560      | HD:560                     |
|        | M5B       | MOUNTAIN FOOTHILLS | 510              | R510      | HD:510                     |
|        |           |                    | 511              | R511      | HD:511                     |
|        |           |                    | 540              | R540      | HD:540                     |
|        |           |                    | 580              | R580      | HD:580                     |
|        | M5C       | PRAIRE-AGRICULTURE | 500              | R500      | HD:500,570                 |
|        |           |                    | 502              | R502      | HD:502,575                 |
|        |           |                    | 530              | R530      | HD:530,590                 |
|        |           |                    | 570              | R500      | HD:500,570                 |
|        |           |                    | 575              | R502      | HD:502,575                 |
|        |           |                    | 590              | R530      | HD:530,590                 |
|        | M5U       | REGION 5 UNKNOWN   | 599              | R599      | HD:R5 UNKN                 |
| 6      | M6A       | REGION 6 DISTRICTS | 600              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 610              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 611              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 620              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 621              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 622              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 623              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 630              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 631              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 632              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 640              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 641              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 650              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 651              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 652              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 670              | R600      | HD:600'S (NOT 680,690)     |
|        |           |                    | 680              | R680      | HD:680,690                 |
|        |           |                    | 690              | R680      | HD:680,690                 |
|        | M6U       | REGION 6 UNKNOWN   | 699              | R699      | HD:R6 UNKN                 |

# MANAGEMENT AREAS, REGULATIONS/QUOTA UNITS, HUNTING DISTRICTS

Wed Oct 30

page 4

2001 Mountain Lion Hunting Districts Table, Sorted by Region-MgmtArea

| Region | Mgmt Area | Mgmt Area Name     | Hunting District | Regs Unit | Regs Unit Name |
|--------|-----------|--------------------|------------------|-----------|----------------|
| 7      | M7A       | REGION 7 DISTRICTS | 700              | R700      | HD:700'S       |
|        |           |                    | 701              | R700      | HD:700'S       |
|        |           |                    | 702              | R700      | HD:700'S       |
|        |           |                    | 703              | R700      | HD:700'S       |
|        |           |                    | 704              | R700      | HD:700'S       |
|        |           |                    | 705              | R700      | HD:700'S       |
|        | M7U       | REGION 7 UNKNOWN   | 799              | R799      | HD:R7 UNKN     |
| 9      | M9U       | REGION UNKNOWN     | 999              | R999      | HD:REGION UNKN |

**Appendix B**

**2001 Mountain Lion Sightings  
Survey Response Data  
Non-Expanded Summary Statistics**

**State and Regional  
By Lion Management Area  
By Lion Regulations/Quota Unit  
By Hunting District**



# RESPONSE DATA NON-EXPANDED SUMMARY STATISTICS

Thu Oct 31

page 1

## 2001 Deer Hunter-Mountain Lion Sighting Survey Response Data Summary Non-expanded Statistics

| Location | Responding<br>Hunters | District<br>Hunted | Hunter<br>Days | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ |
|----------|-----------------------|--------------------|----------------|------------------|--------------------|----------------|---------------|-------------------|
| STA      | 42,652                | 56,737             | 291,098        | 825              | 848                | 7,472          | 1,254         | 1.93              |
| R01      | 7,491                 | 9,747              | 57,138         | 225              | 231                | 2,136          | 340           | 3.00              |
| R02      | 7,249                 | 9,583              | 61,340         | 225              | 232                | 2,166          | 340           | 3.10              |
| R03      | 8,645                 | 10,625             | 57,139         | 140              | 142                | 1,314          | 217           | 1.62              |
| R04      | 9,046                 | 11,228             | 47,721         | 107              | 109                | 948            | 174           | 1.18              |
| R05      | 5,774                 | 6,501              | 26,314         | 92               | 92                 | 600            | 124           | 1.59              |
| R06      | 3,418                 | 3,799              | 16,992         | 9                | 9                  | 66             | 15            | 0.26              |
| R07      | 4,844                 | 5,211              | 24,194         | 31               | 32                 | 237            | 40            | 0.64              |
| R09      | 43                    | 43                 | 260            | 1                | 1                  | 5              | 4             | 2.33              |
| M1A      | 1,327                 | 1,541              | 9,494          | 57               | 59                 | 554            | 98            | 4.30              |
| M1B      | 1,012                 | 1,081              | 8,105          | 13               | 13                 | 177            | 13            | 1.28              |
| M1C      | 4,310                 | 4,925              | 27,873         | 123              | 124                | 1,160          | 178           | 2.85              |
| M1D      | 1,229                 | 1,309              | 7,149          | 19               | 20                 | 158            | 32            | 1.55              |
| M1E      | 577                   | 577                | 2,900          | 14               | 14                 | 77             | 18            | 2.43              |
| M1F      | 292                   | 292                | 1,522          | 0                | 0                  | 0              | 0             | 0.00              |
| M1U      | 22                    | 22                 | 95             | 1                | 1                  | 10             | 1             | 4.55              |
| M2A      | 1,613                 | 1,890              | 12,103         | 51               | 53                 | 604            | 82            | 3.16              |
| M2B      | 2,756                 | 3,339              | 22,454         | 57               | 57                 | 559            | 80            | 2.07              |
| M2C      | 1,218                 | 1,384              | 9,758          | 34               | 35                 | 356            | 54            | 2.79              |
| M2D      | 2,546                 | 2,944              | 16,836         | 84               | 85                 | 621            | 122           | 3.30              |
| M2U      | 26                    | 26                 | 189            | 2                | 2                  | 26             | 2             | 7.69              |
| M3A      | 1,413                 | 1,601              | 10,157         | 23               | 23                 | 216            | 33            | 1.63              |
| M3B      | 2,598                 | 2,933              | 14,332         | 40               | 40                 | 272            | 59            | 1.54              |
| M3C      | 1,712                 | 1,904              | 9,495          | 18               | 18                 | 168            | 22            | 1.05              |
| M3D      | 3,843                 | 4,175              | 23,114         | 61               | 61                 | 658            | 103           | 1.59              |
| M3U      | 12                    | 12                 | 41             | 0                | 0                  | 0              | 0             | 0.00              |
| M4A      | 1,063                 | 1,165              | 4,945          | 16               | 16                 | 153            | 28            | 1.51              |
| M4B      | 4,467                 | 5,098              | 22,965         | 67               | 68                 | 640            | 108           | 1.50              |
| M4C      | 4,467                 | 4,920              | 19,624         | 24               | 24                 | 150            | 37            | 0.54              |
| M4U      | 45                    | 45                 | 187            | 1                | 1                  | 5              | 1             | 2.22              |
| M5A      | 969                   | 976                | 4,031          | 12               | 12                 | 77             | 14            | 1.24              |
| M5B      | 1,172                 | 1,213              | 4,736          | 26               | 26                 | 200            | 40            | 2.22              |
| M5C      | 3,991                 | 4,285              | 17,431         | 53               | 53                 | 319            | 69            | 1.33              |
| M5U      | 27                    | 27                 | 116            | 1                | 1                  | 4              | 1             | 3.70              |
| M6A      | 3,415                 | 3,796              | 16,983         | 9                | 9                  | 66             | 15            | 0.26              |
| M6U      | 3                     | 3                  | 9              | 0                | 0                  | 0              | 0             | 0.00              |
| M7A      | 4,836                 | 5,203              | 24,159         | 31               | 32                 | 237            | 40            | 0.64              |
| M7U      | 8                     | 8                  | 35             | 0                | 0                  | 0              | 0             | 0.00              |
| M9U      | 43                    | 43                 | 260            | 1                | 1                  | 5              | 4             | 2.33              |
| R100     | 932                   | 932                | 5,697          | 42               | 42                 | 427            | 69            | 4.51              |
| R101     | 862                   | 862                | 5,538          | 27               | 27                 | 335            | 45            | 3.13              |
| R102     | 1,190                 | 1,190              | 6,160          | 29               | 29                 | 232            | 38            | 2.44              |
| R103     | 1,259                 | 1,259              | 7,210          | 28               | 28                 | 253            | 42            | 2.22              |
| R104     | 609                   | 609                | 3,797          | 17               | 17                 | 127            | 29            | 2.79              |
| R110     | 577                   | 577                | 2,900          | 14               | 14                 | 77             | 18            | 2.43              |
| R120     | 874                   | 874                | 4,561          | 21               | 21                 | 211            | 28            | 2.40              |
| R121     | 764                   | 764                | 5,646          | 11               | 11                 | 145            | 11            | 1.44              |
| R122     | 740                   | 740                | 4,404          | 19               | 19                 | 129            | 25            | 2.57              |
| R123     | 151                   | 151                | 1,025          | 2                | 2                  | 32             | 2             | 1.32              |
| R124     | 166                   | 166                | 1,434          | 0                | 0                  | 0              | 0             | 0.00              |
| R130     | 648                   | 648                | 3,302          | 11               | 11                 | 96             | 21            | 1.70              |
| R132     | 685                   | 712                | 4,161          | 4                | 4                  | 41             | 6             | 0.58              |
| R140     | 156                   | 156                | 728            | 3                | 3                  | 12             | 3             | 1.92              |
| R141     | 53                    | 53                 | 301            | 1                | 1                  | 2              | 1             | 1.89              |
| R150     | 32                    | 32                 | 179            | 1                | 1                  | 7              | 1             | 3.13              |
| R199     | 22                    | 22                 | 95             | 1                | 1                  | 10             | 1             | 4.55              |

# RESPONSE DATA NON-EXPANDED SUMMARY STATISTICS

Thu Oct 31

page 2

## 2001 Deer Hunter-Mountain Lion Sighting Survey Response Data Summary Non-expanded Statistics

| Location | Responding<br>Hunters | District<br>Hunted | Hunter<br>Days | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ |
|----------|-----------------------|--------------------|----------------|------------------|--------------------|----------------|---------------|-------------------|
| R200     | 850                   | 891                | 6,000          | 20               | 20                 | 251            | 34            | 2.35              |
| R202     | 962                   | 999                | 6,103          | 32               | 33                 | 353            | 48            | 3.33              |
| R204     | 1,417                 | 1,509              | 10,776         | 22               | 22                 | 193            | 32            | 1.55              |
| R210     | 468                   | 493                | 3,044          | 18               | 18                 | 164            | 31            | 3.85              |
| R212     | 627                   | 664                | 5,141          | 15               | 15                 | 170            | 21            | 2.39              |
| R213     | 210                   | 227                | 1,573          | 2                | 2                  | 22             | 2             | 0.95              |
| R240     | 745                   | 745                | 4,450          | 12               | 12                 | 103            | 17            | 1.61              |
| R250     | 405                   | 405                | 3,068          | 15               | 15                 | 176            | 22            | 3.70              |
| R270     | 680                   | 680                | 4,160          | 8                | 8                  | 87             | 9             | 1.18              |
| R280     | 736                   | 806                | 4,877          | 27               | 27                 | 266            | 37            | 3.67              |
| R282     | 66                    | 66                 | 307            | 2                | 2                  | 12             | 2             | 3.03              |
| R283     | 1,081                 | 1,139              | 5,920          | 31               | 31                 | 175            | 45            | 2.87              |
| R290     | 904                   | 933                | 5,732          | 25               | 25                 | 168            | 38            | 2.77              |
| R299     | 26                    | 26                 | 189            | 2                | 2                  | 26             | 2             | 7.69              |
| R300     | 404                   | 439                | 2,307          | 8                | 8                  | 55             | 9             | 1.98              |
| R301     | 361                   | 361                | 1,941          | 3                | 3                  | 45             | 6             | 0.83              |
| R310     | 935                   | 991                | 5,049          | 7                | 7                  | 52             | 8             | 0.75              |
| R312     | 955                   | 997                | 4,999          | 15               | 15                 | 183            | 19            | 1.57              |
| R313     | 115                   | 115                | 506            | 3                | 3                  | 21             | 3             | 2.61              |
| R314     | 221                   | 221                | 1,056          | 3                | 3                  | 13             | 3             | 1.36              |
| R315     | 625                   | 625                | 2,463          | 5                | 5                  | 24             | 9             | 0.80              |
| R317     | 216                   | 216                | 943            | 2                | 2                  | 37             | 2             | 0.93              |
| R318     | 279                   | 288                | 2,248          | 6                | 6                  | 48             | 10            | 2.15              |
| R319     | 342                   | 357                | 2,354          | 7                | 7                  | 77             | 8             | 2.05              |
| R320     | 945                   | 961                | 4,715          | 17               | 17                 | 131            | 25            | 1.80              |
| R321     | 651                   | 693                | 4,397          | 11               | 11                 | 79             | 18            | 1.69              |
| R322     | 905                   | 953                | 4,238          | 9                | 9                  | 64             | 14            | 0.99              |
| R323     | 552                   | 580                | 3,072          | 6                | 6                  | 22             | 11            | 1.09              |
| R335     | 687                   | 706                | 4,474          | 9                | 9                  | 97             | 19            | 1.31              |
| R340     | 551                   | 551                | 3,406          | 5                | 5                  | 60             | 7             | 0.91              |
| R370     | 821                   | 830                | 4,534          | 13               | 13                 | 161            | 21            | 1.58              |
| R390     | 703                   | 729                | 4,396          | 13               | 13                 | 145            | 25            | 1.85              |
| R399     | 12                    | 12                 | 41             | 0                | 0                  | 0              | 0             | 0.00              |
| R400     | 1,496                 | 1,626              | 6,874          | 4                | 4                  | 13             | 8             | 0.27              |
| R404     | 1,231                 | 1,274              | 5,090          | 8                | 8                  | 62             | 12            | 0.65              |
| R405     | 1,493                 | 1,579              | 6,050          | 7                | 7                  | 62             | 7             | 0.47              |
| R410     | 1,091                 | 1,154              | 4,610          | 10               | 10                 | 56             | 16            | 0.92              |
| R411     | 1,578                 | 1,686              | 7,903          | 24               | 24                 | 292            | 43            | 1.52              |
| R413     | 1,141                 | 1,196              | 5,189          | 11               | 11                 | 74             | 18            | 0.96              |
| R416     | 797                   | 884                | 4,225          | 18               | 19                 | 175            | 27            | 2.26              |
| R418     | 594                   | 642                | 3,130          | 5                | 5                  | 22             | 7             | 0.84              |
| R422     | 424                   | 452                | 1,945          | 11               | 11                 | 110            | 22            | 2.59              |
| R445     | 685                   | 690                | 2,518          | 9                | 9                  | 77             | 13            | 1.31              |
| R499     | 45                    | 45                 | 187            | 1                | 1                  | 5              | 1             | 2.22              |
| R500     | 1,195                 | 1,215              | 4,447          | 11               | 11                 | 110            | 17            | 0.92              |
| R502     | 1,432                 | 1,464              | 6,240          | 18               | 18                 | 88             | 26            | 1.26              |
| R510     | 191                   | 191                | 1,003          | 11               | 11                 | 91             | 13            | 5.76              |
| R511     | 247                   | 247                | 812            | 3                | 3                  | 40             | 3             | 1.21              |
| R520     | 550                   | 550                | 2,387          | 8                | 8                  | 62             | 10            | 1.45              |
| R530     | 1,559                 | 1,606              | 6,744          | 24               | 24                 | 121            | 26            | 1.54              |
| R540     | 221                   | 221                | 929            | 4                | 4                  | 33             | 7             | 1.81              |
| R560     | 426                   | 426                | 1,644          | 4                | 4                  | 15             | 4             | 0.94              |
| R580     | 554                   | 554                | 1,992          | 8                | 8                  | 36             | 17            | 1.44              |
| R599     | 27                    | 27                 | 116            | 1                | 1                  | 4              | 1             | 3.70              |
| R600     | 2,633                 | 2,927              | 13,250         | 4                | 4                  | 19             | 5             | 0.15              |
| R680     | 852                   | 869                | 3,733          | 5                | 5                  | 47             | 10            | 0.59              |
| R699     | 3                     | 3                  | 9              | 0                | 0                  | 0              | 0             | 0.00              |
| R700     | 4,836                 | 5,203              | 24,159         | 31               | 32                 | 237            | 40            | 0.64              |
| R799     | 8                     | 8                  | 35             | 0                | 0                  | 0              | 0             | 0.00              |
| R999     | 43                    | 43                 | 260            | 1                | 1                  | 5              | 4             | 2.33              |

# RESPONSE DATA NON-EXPANDED SUMMARY STATISTICS

Thu Oct 31

page 3

## 2001 Deer Hunter-Mountain Lion Sighting Survey Response Data Summary Non-expanded Statistics

| Location | Responding<br>Hunters | District<br>Hunted | Hunter<br>Days | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ |
|----------|-----------------------|--------------------|----------------|------------------|--------------------|----------------|---------------|-------------------|
| 100      | 932                   | 932                | 5,697          | 42               | 42                 | 427            | 69            | 4.51              |
| 101      | 862                   | 862                | 5,538          | 27               | 27                 | 335            | 45            | 3.13              |
| 102      | 1,190                 | 1,190              | 6,160          | 29               | 29                 | 232            | 38            | 2.44              |
| 103      | 1,259                 | 1,259              | 7,210          | 28               | 28                 | 253            | 42            | 2.22              |
| 104      | 609                   | 609                | 3,797          | 17               | 17                 | 127            | 29            | 2.79              |
| 110      | 577                   | 577                | 2,900          | 14               | 14                 | 77             | 18            | 2.43              |
| 120      | 874                   | 874                | 4,561          | 21               | 21                 | 211            | 28            | 2.40              |
| 121      | 764                   | 764                | 5,646          | 11               | 11                 | 145            | 11            | 1.44              |
| 122      | 740                   | 740                | 4,404          | 19               | 19                 | 129            | 25            | 2.57              |
| 123      | 151                   | 151                | 1,025          | 2                | 2                  | 32             | 2             | 1.32              |
| 124      | 166                   | 166                | 1,434          | 0                | 0                  | 0              | 0             | 0.00              |
| 130      | 648                   | 648                | 3,302          | 11               | 11                 | 96             | 21            | 1.70              |
| 132      | 420                   | 420                | 2,639          | 4                | 4                  | 41             | 6             | 0.95              |
| 140      | 156                   | 156                | 728            | 3                | 3                  | 12             | 3             | 1.92              |
| 141      | 53                    | 53                 | 301            | 1                | 1                  | 2              | 1             | 1.89              |
| 150      | 23                    | 23                 | 126            | 0                | 0                  | 0              | 0             | 0.00              |
| 151      | 9                     | 9                  | 53             | 1                | 1                  | 7              | 1             | 11.11             |
| 170      | 292                   | 292                | 1,522          | 0                | 0                  | 0              | 0             | 0.00              |
| 199      | 22                    | 22                 | 95             | 1                | 1                  | 10             | 1             | 4.55              |
| 200      | 254                   | 254                | 1,755          | 4                | 4                  | 63             | 5             | 1.57              |
| 201      | 637                   | 637                | 4,245          | 16               | 16                 | 188            | 29            | 2.51              |
| 202      | 550                   | 550                | 3,654          | 11               | 11                 | 130            | 12            | 2.00              |
| 203      | 449                   | 449                | 2,449          | 22               | 22                 | 223            | 36            | 4.90              |
| 204      | 653                   | 653                | 3,877          | 13               | 13                 | 70             | 16            | 1.99              |
| 210      | 329                   | 329                | 1,978          | 11               | 11                 | 105            | 20            | 3.34              |
| 211      | 82                    | 82                 | 638            | 5                | 5                  | 29             | 7             | 6.10              |
| 212      | 396                   | 396                | 3,100          | 8                | 8                  | 101            | 12            | 2.02              |
| 213      | 125                   | 125                | 869            | 2                | 2                  | 22             | 2             | 1.60              |
| 214      | 102                   | 102                | 704            | 0                | 0                  | 0              | 0             | 0.00              |
| 215      | 268                   | 268                | 2,041          | 7                | 7                  | 69             | 9             | 2.61              |
| 216      | 82                    | 82                 | 428            | 2                | 2                  | 30             | 4             | 2.44              |
| 240      | 745                   | 745                | 4,450          | 12               | 12                 | 103            | 17            | 1.61              |
| 250      | 405                   | 405                | 3,068          | 15               | 15                 | 176            | 22            | 3.70              |
| 260      | 572                   | 572                | 5,145          | 4                | 4                  | 88             | 4             | 0.70              |
| 261      | 284                   | 284                | 1,754          | 5                | 5                  | 35             | 12            | 1.76              |
| 270      | 680                   | 680                | 4,160          | 8                | 8                  | 87             | 9             | 1.18              |
| 280      | 51                    | 51                 | 281            | 2                | 2                  | 5              | 3             | 3.92              |
| 281      | 367                   | 367                | 2,295          | 16               | 16                 | 182            | 20            | 4.36              |
| 282      | 66                    | 66                 | 307            | 2                | 2                  | 12             | 2             | 3.03              |
| 283      | 478                   | 478                | 2,468          | 10               | 10                 | 53             | 13            | 2.09              |
| 284      | 60                    | 60                 | 346            | 2                | 2                  | 20             | 3             | 3.33              |
| 285      | 661                   | 661                | 3,452          | 21               | 21                 | 122            | 32            | 3.18              |
| 290      | 65                    | 65                 | 495            | 0                | 0                  | 0              | 0             | 0.00              |
| 291      | 191                   | 191                | 1,079          | 4                | 4                  | 30             | 5             | 2.09              |
| 292      | 677                   | 677                | 4,158          | 21               | 21                 | 138            | 33            | 3.10              |
| 293      | 328                   | 328                | 1,955          | 7                | 7                  | 59             | 11            | 2.13              |
| 299      | 26                    | 26                 | 189            | 2                | 2                  | 26             | 2             | 7.69              |
| 300      | 85                    | 85                 | 464            | 2                | 2                  | 14             | 2             | 2.35              |
| 301      | 361                   | 361                | 1,941          | 3                | 3                  | 45             | 6             | 0.83              |
| 302      | 107                   | 107                | 460            | 2                | 2                  | 12             | 2             | 1.87              |
| 310      | 76                    | 76                 | 316            | 1                | 1                  | 2              | 1             | 1.32              |
| 311      | 635                   | 635                | 3,233          | 4                | 4                  | 45             | 5             | 0.63              |
| 312      | 594                   | 594                | 3,266          | 10               | 10                 | 154            | 13            | 1.68              |
| 313      | 103                   | 103                | 472            | 2                | 2                  | 18             | 2             | 1.94              |
| 314      | 221                   | 221                | 1,056          | 3                | 3                  | 13             | 3             | 1.36              |
| 315      | 625                   | 625                | 2,463          | 5                | 5                  | 24             | 9             | 0.80              |
| 316      | 12                    | 12                 | 34             | 1                | 1                  | 3              | 1             | 8.33              |
| 317      | 216                   | 216                | 943            | 2                | 2                  | 37             | 2             | 0.93              |
| 318      | 127                   | 127                | 1,041          | 3                | 3                  | 28             | 5             | 2.36              |
| 319      | 231                   | 231                | 1,499          | 4                | 4                  | 42             | 4             | 1.73              |
| 320      | 311                   | 311                | 1,723          | 7                | 7                  | 71             | 13            | 2.25              |
| 321      | 127                   | 127                | 684            | 2                | 2                  | 41             | 3             | 1.57              |
| 322      | 434                   | 434                | 1,622          | 5                | 5                  | 33             | 9             | 1.15              |
| 323      | 80                    | 80                 | 395            | 3                | 3                  | 9              | 8             | 3.75              |
| 324      | 165                   | 165                | 969            | 1                | 1                  | 5              | 1             | 0.61              |
| 325      | 264                   | 264                | 1,313          | 2                | 2                  | 8              | 2             | 0.76              |

# RESPONSE DATA NON-EXPANDED SUMMARY STATISTICS

Thu Oct 31

page 4

## 2001 Deer Hunter-Mountain Lion Sighting Survey Response Data Summary Non-expanded Statistics

| Location | Responding<br>Hunters | District<br>Hunted | Hunter<br>Days | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ |
|----------|-----------------------|--------------------|----------------|------------------|--------------------|----------------|---------------|-------------------|
| 326      | 301                   | 301                | 1,430          | 2                | 2                  | 22             | 3             | 0.66              |
| 327      | 71                    | 71                 | 395            | 0                | 0                  | 0              | 0             | 0.00              |
| 328      | 72                    | 72                 | 409            | 2                | 2                  | 16             | 3             | 2.78              |
| 329      | 175                   | 175                | 974            | 2                | 2                  | 13             | 2             | 1.14              |
| 330      | 218                   | 218                | 1,186          | 2                | 2                  | 9              | 2             | 0.92              |
| 331      | 418                   | 418                | 2,884          | 8                | 8                  | 36             | 14            | 1.91              |
| 332      | 148                   | 148                | 829            | 1                | 1                  | 2              | 1             | 0.68              |
| 333      | 650                   | 650                | 2,992          | 10               | 10                 | 60             | 12            | 1.54              |
| 335      | 217                   | 217                | 1,440          | 3                | 3                  | 36             | 7             | 1.38              |
| 339      | 248                   | 248                | 1,440          | 1                | 1                  | 12             | 3             | 0.40              |
| 340      | 551                   | 551                | 3,406          | 5                | 5                  | 60             | 7             | 0.91              |
| 341      | 126                   | 126                | 855            | 3                | 3                  | 35             | 4             | 2.38              |
| 343      | 241                   | 241                | 1,594          | 5                | 5                  | 49             | 9             | 2.07              |
| 350      | 161                   | 161                | 1,207          | 3                | 3                  | 20             | 5             | 1.86              |
| 360      | 191                   | 191                | 843            | 0                | 0                  | 0              | 0             | 0.00              |
| 361      | 42                    | 42                 | 448            | 0                | 0                  | 0              | 0             | 0.00              |
| 362      | 47                    | 47                 | 209            | 2                | 2                  | 5              | 2             | 4.26              |
| 370      | 90                    | 90                 | 465            | 2                | 2                  | 5              | 3             | 2.22              |
| 380      | 740                   | 740                | 4,069          | 11               | 11                 | 156            | 18            | 1.49              |
| 390      | 74                    | 74                 | 320            | 0                | 0                  | 0              | 0             | 0.00              |
| 391      | 262                   | 262                | 1,472          | 2                | 2                  | 34             | 6             | 0.76              |
| 392      | 393                   | 393                | 2,604          | 11               | 11                 | 111            | 19            | 2.80              |
| 393      | 403                   | 403                | 1,733          | 5                | 5                  | 29             | 6             | 1.24              |
| 399      | 12                    | 12                 | 41             | 0                | 0                  | 0              | 0             | 0.00              |
| 400      | 574                   | 574                | 2,297          | 1                | 1                  | 2              | 3             | 0.17              |
| 401      | 513                   | 513                | 2,100          | 1                | 1                  | 6              | 2             | 0.19              |
| 403      | 62                    | 62                 | 204            | 1                | 1                  | 3              | 1             | 1.61              |
| 404      | 763                   | 763                | 3,153          | 3                | 3                  | 19             | 6             | 0.39              |
| 405      | 474                   | 474                | 1,520          | 2                | 2                  | 5              | 2             | 0.42              |
| 406      | 275                   | 275                | 1,210          | 1                | 1                  | 2              | 2             | 0.36              |
| 410      | 311                   | 311                | 1,314          | 2                | 2                  | 4              | 3             | 0.64              |
| 411      | 1,045                 | 1,045              | 5,002          | 18               | 18                 | 254            | 33            | 1.72              |
| 412      | 641                   | 641                | 2,901          | 6                | 6                  | 38             | 10            | 0.94              |
| 413      | 732                   | 732                | 3,020          | 6                | 6                  | 50             | 6             | 0.82              |
| 415      | 19                    | 19                 | 68             | 0                | 0                  | 0              | 0             | 0.00              |
| 416      | 344                   | 344                | 1,635          | 5                | 5                  | 38             | 7             | 1.45              |
| 417      | 249                   | 249                | 1,081          | 6                | 6                  | 48             | 11            | 2.41              |
| 418      | 348                   | 348                | 1,574          | 2                | 2                  | 5              | 2             | 0.57              |
| 419      | 236                   | 236                | 903            | 2                | 2                  | 4              | 2             | 0.85              |
| 420      | 54                    | 54                 | 260            | 1                | 1                  | 4              | 1             | 1.85              |
| 421      | 176                   | 176                | 626            | 2                | 2                  | 11             | 3             | 1.14              |
| 422      | 114                   | 114                | 467            | 3                | 3                  | 10             | 5             | 2.63              |
| 423      | 102                   | 102                | 371            | 3                | 3                  | 14             | 4             | 2.94              |
| 424      | 61                    | 61                 | 320            | 0                | 0                  | 0              | 0             | 0.00              |
| 425      | 77                    | 77                 | 297            | 5                | 5                  | 86             | 13            | 6.49              |
| 426      | 358                   | 358                | 1,312          | 0                | 0                  | 0              | 0             | 0.00              |
| 432      | 464                   | 464                | 2,169          | 5                | 5                  | 24             | 12            | 1.08              |
| 441      | 183                   | 183                | 995            | 0                | 0                  | 0              | 0             | 0.00              |
| 442      | 98                    | 98                 | 490            | 0                | 0                  | 0              | 0             | 0.00              |
| 444      | 179                   | 179                | 764            | 2                | 2                  | 29             | 2             | 1.12              |
| 445      | 639                   | 639                | 2,301          | 9                | 9                  | 77             | 13            | 1.41              |
| 446      | 191                   | 191                | 906            | 5                | 5                  | 53             | 7             | 2.62              |
| 447      | 875                   | 875                | 3,677          | 3                | 3                  | 49             | 3             | 0.34              |
| 448      | 240                   | 240                | 1,296          | 2                | 2                  | 13             | 4             | 0.83              |
| 449      | 130                   | 130                | 591            | 3                | 3                  | 27             | 3             | 2.31              |
| 450      | 156                   | 156                | 547            | 1                | 1                  | 3              | 1             | 0.64              |
| 452      | 79                    | 79                 | 350            | 0                | 0                  | 0              | 0             | 0.00              |
| 454      | 140                   | 140                | 743            | 6                | 6                  | 57             | 10            | 4.29              |
| 455      | 51                    | 51                 | 217            | 0                | 0                  | 0              | 0             | 0.00              |
| 471      | 230                   | 230                | 853            | 2                | 2                  | 8              | 2             | 0.87              |
| 499      | 45                    | 45                 | 187            | 1                | 1                  | 5              | 1             | 2.22              |
| 500      | 612                   | 612                | 2,215          | 1                | 1                  | 4              | 1             | 0.16              |
| 502      | 606                   | 606                | 2,635          | 6                | 6                  | 35             | 10            | 0.99              |
| 510      | 191                   | 191                | 1,003          | 11               | 11                 | 91             | 13            | 5.76              |
| 511      | 247                   | 247                | 812            | 3                | 3                  | 40             | 3             | 1.21              |
| 520      | 550                   | 550                | 2,387          | 8                | 8                  | 62             | 10            | 1.45              |

# RESPONSE DATA NON-EXPANDED SUMMARY STATISTICS

Thu Oct 31

page 5

## 2001 Deer Hunter-Mountain Lion Sighting Survey Response Data Summary Non-expanded Statistics

| Location | Responding<br>Hunters | District<br>Hunted | Hunter<br>Days | Hunter<br>Observ | District<br>Observ | Observ<br>Days | Lions<br>Seen | Percent<br>Observ |
|----------|-----------------------|--------------------|----------------|------------------|--------------------|----------------|---------------|-------------------|
| 530      | 551                   | 551                | 2,252          | 9                | 9                  | 40             | 10            | 1.63              |
| 540      | 221                   | 221                | 929            | 4                | 4                  | 33             | 7             | 1.81              |
| 560      | 426                   | 426                | 1,644          | 4                | 4                  | 15             | 4             | 0.94              |
| 570      | 603                   | 603                | 2,232          | 10               | 10                 | 106            | 16            | 1.66              |
| 575      | 858                   | 858                | 3,605          | 12               | 12                 | 53             | 16            | 1.40              |
| 580      | 554                   | 554                | 1,992          | 8                | 8                  | 36             | 17            | 1.44              |
| 590      | 1,055                 | 1,055              | 4,492          | 15               | 15                 | 81             | 16            | 1.42              |
| 599      | 27                    | 27                 | 116            | 1                | 1                  | 4              | 1             | 3.70              |
| 600      | 338                   | 338                | 1,458          | 0                | 0                  | 0              | 0             | 0.00              |
| 610      | 203                   | 203                | 804            | 0                | 0                  | 0              | 0             | 0.00              |
| 611      | 186                   | 186                | 667            | 2                | 2                  | 6              | 3             | 1.08              |
| 620      | 215                   | 215                | 824            | 0                | 0                  | 0              | 0             | 0.00              |
| 621      | 98                    | 98                 | 524            | 0                | 0                  | 0              | 0             | 0.00              |
| 622      | 87                    | 87                 | 403            | 0                | 0                  | 0              | 0             | 0.00              |
| 623      | 48                    | 48                 | 222            | 0                | 0                  | 0              | 0             | 0.00              |
| 630      | 354                   | 354                | 1,926          | 0                | 0                  | 0              | 0             | 0.00              |
| 631      | 57                    | 57                 | 255            | 0                | 0                  | 0              | 0             | 0.00              |
| 632      | 58                    | 58                 | 201            | 0                | 0                  | 0              | 0             | 0.00              |
| 640      | 322                   | 322                | 1,598          | 0                | 0                  | 0              | 0             | 0.00              |
| 641      | 68                    | 68                 | 371            | 0                | 0                  | 0              | 0             | 0.00              |
| 650      | 294                   | 294                | 1,219          | 1                | 1                  | 10             | 1             | 0.34              |
| 651      | 266                   | 266                | 1,445          | 1                | 1                  | 3              | 1             | 0.38              |
| 652      | 62                    | 62                 | 214            | 0                | 0                  | 0              | 0             | 0.00              |
| 670      | 271                   | 271                | 1,119          | 0                | 0                  | 0              | 0             | 0.00              |
| 680      | 169                   | 169                | 664            | 1                | 1                  | 7              | 1             | 0.59              |
| 690      | 700                   | 700                | 3,069          | 4                | 4                  | 40             | 9             | 0.57              |
| 699      | 3                     | 3                  | 9              | 0                | 0                  | 0              | 0             | 0.00              |
| 700      | 874                   | 874                | 4,089          | 4                | 4                  | 28             | 4             | 0.46              |
| 701      | 978                   | 978                | 4,275          | 7                | 7                  | 64             | 10            | 0.72              |
| 702      | 589                   | 589                | 2,606          | 4                | 4                  | 12             | 7             | 0.68              |
| 703      | 965                   | 965                | 5,411          | 4                | 4                  | 40             | 5             | 0.41              |
| 704      | 1,036                 | 1,036              | 4,454          | 8                | 8                  | 51             | 8             | 0.77              |
| 705      | 761                   | 761                | 3,324          | 5                | 5                  | 42             | 6             | 0.66              |
| 799      | 8                     | 8                  | 35             | 0                | 0                  | 0              | 0             | 0.00              |
| 999      | 43                    | 43                 | 260            | 1                | 1                  | 5              | 4             | 2.33              |



## **Appendix C**

### **2001 Mountain Lion Sightings Statistical Estimates Data File Description**



# Mountain Lion Sightings While Deer Hunting

## Description of Data File of Statistical Estimates

License Year 2001

Montana Fish Wildlife and Parks

Harvest Surveys

October 31, 2002

This document contains a description of the License Year 2001 "Mountain Lion Sightings While Deer Hunting" data file of expanded statistical estimates. This file was exported from the original Oracle data tables used to produce the **2001 Mountain Lion Sightings Report**. An additional data file defines Mountain Lion Management Areas and Regulation/Quota Units by Hunting District. The data sets are distributed in **Comma Separated Value ASCII text files** where character values are quoted and numeric values are not. Numeric values were exported to 2 decimal places. Headers are not included. The data files have the extension \*.Csv. They are accompanied by \*.sch files which define the file format and column types. This documentation appears as Appendix C of the 2001 report, and as a stand alone Rich Text Format (rtf) document distributed with the data set (**2001MLionObsStatsData.Rtf**). Descriptions and column definitions for the data file are given below:

### **DmHu01\_021031.Csv –LY2001 Table of Lion Sightings by Deer Hunters Statistics (generated 10/31/2002)**

- **Loc (Location):** STA=Statewide; R01..R07,R09=Regional 1..7,Unknown; M1A..M9U=Management Area; R100..R900=Regs/Quota Unit; ###=Hunting District (100,101,...), #99=Unknown District within Region. 999=Unknown District and Region. (See included **DmHDist01.Csv** table for Lion Districts, Mgmt Areas, and Regs/Quota Units.)
- **Sort\_Loc:** Variable which assists in sorting the records by Location.
- **Exp\_Fact (Expansion Factor):** Number by which survey response summary statistics were expanded to statistical estimates. Number of resident active deer hunters divided by number of valid responses used in analysis from resident active deer hunters.
- **Hunt (Hunters):** Point estimate of number of resident sportspersons actively hunting deer.
- **Hunt\_L (Hunters Lower Bound):** Lower 80% confidence bound on active deer hunters.
- **Hunt\_U (Hunters Upper Bound):** Upper 80% confidence bound on active deer hunters.
- **DistHunt (Districts Hunted):** Sum of number of districts reported used by all active deer hunters.
- **HDays (Hunter Days):** Sum of number of days or partial days spent hunting deer by all hunters.
- **HDays\_L (Hunter Days Lower Bound):** Lower 80% confidence bound on hunter days.
- **HDays\_U (Hunter Days Upper Bound):** Upper 80% confidence bound on hunter days.
- **Obs (Lion Observers):** Point estimate of number of resident active deer hunters observing a lion.
- **Obs\_L (Obs Lower Bound):** Lower 80% confidence bound on lion observers.
- **Obs\_U (Obs Upper Bound):** Upper 80% confidence bound on lion observers.
- **ODays (Observation Days):** Sum of deer hunter days for hunts where lion was observed.
- **ODays\_L (ODays Lower Bound):** Lower 80% confidence bound on observation days.
- **ODays\_U (ODays Upper Bound):** Upper 80% confidence bound on observation days.
- **ObsN (Lions Seen):** Point estimate of number of lion seen by lion observers.
- **ObsN\_L (ObsN Lower Bound):** Lower 80% confidence bound on lions seen.
- **ObsN\_U (ObsN Upper Bound):** Upper 80% confidence bound on lions seen.
- **PctObs (Percent Observers):** Percent of resident active deer hunters observing a lion.

Various meaningful ratios and percents further describing Mountain Lion sightings by deer hunters can be computed based on these provided statistics. Please refer to the **2001 Mountain Lion Sightings Report** for definitions of these ratios and percents and examples of their use.

**DmHDist01.Csv –LY2001 Table of Lion Hunting Districts, Regions, Management Areas, & Regulations Units**

- **HDist:** Mountain Lion Hunting District. Same as Deer hunting district.
- **Region:** FWP Administrative Region of district.
- **MgmtArea:** Mountain Lion Management Area of District.
- **MgmtArea\_Name:** Descriptive name of Mountain Lion Management Area.
- **RegsUnit:** Mountain Lion Regulations/Quota Unit of District.
- **MgmtArea\_Name:** Descriptive name of Mountain Lion Regulations/Quota Unit.

## 2001 MOUNTAIN LION SIGHTING SURVEY

Interviewers: Please read this introduction if there is a Mountain Lion Sighting label for the individual and if this person hunted DEER this past 2001 hunting season (deer survey question 1 is YES).

**Introduction:** FWP is currently conducting a long-term mountain lion research project. As part of that study effort, we are evaluating different methods of monitoring trends in lion abundance. One method we are testing is to survey deer hunters across the state in regards to the number of lions they observe while hunting deer. You can help by answering the following questions.

Interviewers: Fill out this form if **this person sighted a mountain lion while hunting DEER this past 2001 hunting season** (the answer to question 1 below is YES). Place mountain lion label above over "Introduction".

1. Did you see one or more mountain lions while deer hunting during the 2001 hunting season?    ☐ YES
2. List up to 4 hunting districts where you sighted lions while hunting deer, the total days you hunted, and the total number of lions that you saw.

Interviewers: The deer hunting district(s) where the respondent sighted the mountain lion(s) should be selected from the hunting districts (and days hunted) you listed on the deer questionnaire (deer questionnaire question 2).

| Deer Hunting District Number* |  |  |  | Number Days Hunted for Deer* |  |  |  | Number Lions Observed (1-9) |  |  |
|-------------------------------|--|--|--|------------------------------|--|--|--|-----------------------------|--|--|
|                               |  |  |  |                              |  |  |  |                             |  |  |
|                               |  |  |  |                              |  |  |  |                             |  |  |
|                               |  |  |  |                              |  |  |  |                             |  |  |
|                               |  |  |  |                              |  |  |  |                             |  |  |

\* as indicated on deer questionnaire

### Special Instructions to Interviewers

*Record only reported visual sightings of mountain lions made during the **2001 deer hunting season while hunting deer**. Disregard all other responses (observations made during previous years, while hunting other species such as elk, or observations of tracks, scat, etc.).*

*Hunters who have questions about the survey can be directed to Rich DeSimone (444-0358) or Jeff Herbert (444-3940).*

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861.

2. The second part is a report from the Secretary of the Treasury, dated January 1, 1861.

3. The third part is a report from the Secretary of the Interior, dated January 1, 1861.

4. The fourth part is a report from the Secretary of the Navy, dated January 1, 1861.

5. The fifth part is a report from the Secretary of the War, dated January 1, 1861.

6. The sixth part is a report from the Secretary of the State, dated January 1, 1861.

7. The seventh part is a report from the Secretary of the Army, dated January 1, 1861.

8. The eighth part is a report from the Secretary of the Navy, dated January 1, 1861.

9. The ninth part is a report from the Secretary of the War, dated January 1, 1861.

|                                                                                                                            |                                                                                        |                                                                                       |                                                                                    |                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. | The second part is a report from the Secretary of the Treasury, dated January 1, 1861. | The third part is a report from the Secretary of the Interior, dated January 1, 1861. | The fourth part is a report from the Secretary of the Navy, dated January 1, 1861. | The fifth part is a report from the Secretary of the War, dated January 1, 1861. |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|

10. The tenth part is a report from the Secretary of the State, dated January 1, 1861.

11. The eleventh part is a report from the Secretary of the Army, dated January 1, 1861.

12. The twelfth part is a report from the Secretary of the Navy, dated January 1, 1861.

13. The thirteenth part is a report from the Secretary of the War, dated January 1, 1861.

14. The fourteenth part is a report from the Secretary of the State, dated January 1, 1861.

15. The fifteenth part is a report from the Secretary of the Army, dated January 1, 1861.



